



AGENDA

ICEMA MEDICAL ADVISORY COMMITTEE

December 19, 2019

1300

Purpose: Information Sharing

Meeting Facilitator: Stephen Patterson

Timekeeper: Suzee Kolodzik

Record Keeper: Suzee Kolodzik

AGENDA ITEM		PERSON(S)	DISCUSSION/ACTION
I.	Welcome/Introductions	Stephen Patterson	
II.	Approval of Minutes	Stephen Patterson	Discussion/Action
III.	Discussion/Action Items		
	A. Standing EMS System Updates		
	1. Trauma Program	1. Loreen Gutierrez	1. Discussion
	2. STEMI Program	2. Loreen Gutierrez	2. Discussion
	3. Stroke Program	3. Loreen Gutierrez	3. Discussion
	B. EMS Trends		
	1. Out of Hospital Cardiac Arrest Initiative	1. Reza Vaezazizi	1. Discussion
	2. EMS Recognition	2. Stephen Patterson	2. Discussion
	C. Continuous Quality Improvement Leadership Team (CQILT)	Suzee Kolodzik	Discussion
	D. Versed Use for Behavioral Emergencies	Reza Vaezazizi	Discussion
	E. Toradol Addition Update	Reza Vaezazizi	Discussion
	F. 2020 Skills Manual Update	Ann Martgan	Discussion/Action
	G. HEMS Utilization Task Force	1. Stephen Patterson	Discussion
	H. Protocol Review/Update	Ron Holk/Loreen Gutierrez	Discussion/Action
	1. 6060 - Specialty and Optional Scope Program Approval		
	2. 7010 - BLS/LALS/ALS Standard Drug and Equipment List		
	3. 7020 - EMS Aircraft Standard Drug and Equipment list		
	4. 7040 - Medication - Standard Orders		
	5. 8170 - EMS Aircraft Utilization		

AGENDA - MEDICAL ADVISORY COMMITTEE

December 19, 2019

Page 2

	6. 11070 - Cardiac Arrest - Adult		
	7. 13010 - Poisonings		
	7. 14030 - Allergic Reactions - Pediatric		
IV.	Public Comment Period		
V.	Future Agenda Items		
VI.	Next Meeting Date: February 27, 2020		
VII.	Adjournment		
VIII.	Closed Session		
	A. Case Reviews		
	B. Loop Closure Cases		



MINUTES

ICEMA MEDICAL ADVISORY COMMITTEE

October 24, 2019

1300

AGENDA ITEM		DISCUSSION/FOLLOW UP	RESPONSIBLE PERSON(S)
I.	WELCOME/INTRODUCTIONS	Meeting was called to order at 1313.	Stephen Patterson
II.	APPROVAL OF MINUTES	<p>The August 22, 2019, minutes were reviewed.</p> <p>Motion to approve. MSC: Debbie Bervel/Joy Peters APPROVED Ayes: Brian Savino, Brandon Woodward, Debbie Bervel, Seth Dukes, Kevin Parkes, Joy Peters, Leslie Parham, Susie Moss, Christopher Tardiff, Kenneth Fox, Troy Pennington, Stephen Patterson, Michael Guirguis, Amanda Ward</p>	Stephen Patterson
III.	DISCUSSION ITEMS		
	A. Standing EMS System Updates		
	1. Trauma Program	No update.	Loreen Gutierrez
	2. STEMI Program	High Performance CPR training is nearly completed with EMS providers. ICEMA will assist hospitals in the training of High Performance CPR.	Loreen Gutierrez
	3. Stroke Program	No update.	Loreen Gutierrez
	B. EMS Trends		
	1. Out of Hospital Cardiac Arrest Initiative	ICEMA is focused on resuscitation with improvement to patient outcomes and will continue to monitor the progress of out of hospital cardiac arrests as a high priority.	1. Reza Vaezazizi
	2. EMS Recognition	ICEMA recognized Colton Fire Department for its role in performing High Performance CPR that resulted in a life saving measure.	2. Reza Vaezazizi
	C. Tylenol and Toradol	<p>Tylenol and Toradol was presented for review.</p> <p>Motion to add IV Toradol in the current Pain Management protocol. MSC: Joy Peters/Susie Moss APPROVED</p>	Christopher Tardiff

MINUTES - MEDICAL ADVISORY COMMITTEE

October 24, 2019

Page 2

		<p>Ayes: Brian Savino, Brandon Woodward, Debbie Bervel, Seth Dukes, Kevin Parkes, Joy Peters, Susie Moss, Christopher Tardiff, Kenneth Fox, Troy Pennington, Stephen Patterson, Michael Guirguis, Amanda Ward</p> <p>Nays: Leslie Parham</p>	
	D. Ketamine Use with GCS < 15	MAC had no reservations to removing the Glasgow Coma Scale requirement in the Pain Management protocol.	Reza Vaezazizi
	E. 2020 MAC Meeting Dates	2020 meeting dates were included in agenda packet for reference.	Stephen Patterson
	F. Literature Review Effect of a Strategy of a Supraglottic Airway Device vs Tracheal Intubation During Out-of-Hospital Cardiac Arrest on Functional Outcome	Article included in agenda packet for review.	Seth Dukes
	G. HEMS Utilization Task Force	The task force has established a process for Quality Improvement and case reviews. Through these processes, the task force was able to develop a new HEMS policy.	Stephen Patterson
	H. Protocol Review/Update		All
	1. 8170 - EMS Aircraft Utilization	<p>The policy was presented for review and received extensive public comments.</p> <p>Motion to postpone review of the policy until after the HEMS Task Force can reconvene prior to the next MAC meeting on December 19, 2019.</p> <p>APPROVED</p> <p>Ayes: Brian Savino, Brandon Woodward, Debbie Bervel, Seth Dukes, Kevin Parkes, Joy Peters, Leslie Parham, Susie Moss, Christopher Tardiff, Kenneth Fox, Troy Pennington, Stephen Patterson, Michael Guirguis, Amanda Ward</p>	
IV.	PUBLIC COMMENT		
V.	FUTURE AGENDA ITEMS	- EMS Physician On Scene	
VI.	NEXT MEETING	December 19, 2019	
VII.	ADJOURNMENT	Meeting was adjourned at 1545.	

MINUTES - MEDICAL ADVISORY COMMITTEE

October 24, 2019

Page 3

Attendees:

NAME	MAC POSITION	EMS AGENCY STAFF	POSITION
<input checked="" type="checkbox"/> P. Brian Savino - LLUMC	Trauma Hospital Physicians (2)	<input checked="" type="checkbox"/> Reza Vaezazizi, MD	Medical Director
<input checked="" type="checkbox"/> Brandon Woodward - ARMC			
<input type="checkbox"/> Melanie Randall - LLUMC	Pediatric Critical Care Physician	<input checked="" type="checkbox"/> Tom Lynch	EMS Administrator
<input type="checkbox"/> Phong Nguyen - RDCH	Non-Trauma Base Physicians (2)	<input checked="" type="checkbox"/> Loreen Gutierrez	Specialty Care Coordinator
<input checked="" type="checkbox"/> Debbie Bervel - SARH			
<input type="checkbox"/> Aaron Rubin - Kaiser	Non-Base Hospital Physician	<input checked="" type="checkbox"/> Ron Holk	EMS Coordinator
<input type="checkbox"/> Michael Neeki - Rialto FD	Public Transport Medical Director	<input checked="" type="checkbox"/> Suzee Kolodzik	EMS Specialist
<input checked="" type="checkbox"/> Seth Dukes - AMR	Private Transport Medical Director	<input type="checkbox"/> Amber Anaya	EMS Specialist
<input checked="" type="checkbox"/> Kevin Parkes - Ontario FD	Fire Department Medical Director		
<input checked="" type="checkbox"/> Joy Peters - ARMC	EMS Nurses Representative		
<input checked="" type="checkbox"/> Leslie Parham - Chino Valley FD	EMS Officers Representative		
<input type="checkbox"/> Joe Powell - Rialto FD	Public Transport Medical Representative (Paramedic/RN)		
<input checked="" type="checkbox"/> Susie Moss - AMR	Private Transport Medical Representative (Paramedic/RN)		
<input checked="" type="checkbox"/> Christopher Tardiff - AMR	Private Transport Field Paramedic		
<input checked="" type="checkbox"/> Kenneth Fox - BBFD	Public Safety Field Paramedic		
<input type="checkbox"/> Lance Brown - LLUMC	Specialty Center Medical Director		
<input type="checkbox"/> Mendy Hickey - SMMC	Specialty Center Coordinator		
<input checked="" type="checkbox"/> Troy Pennington - Mercy Air	Private Air Transport Medical Director		
<input checked="" type="checkbox"/> Stephen Patterson - Sheriff's Air Rescue	Public Air Transport Medical Director		
<input checked="" type="checkbox"/> Michael Guirguis - SB Comm Center	PSAP Medical Director		
<input type="checkbox"/> Lisa Davis - Sierra Lifeflight	Inyo County Representative		
<input type="checkbox"/> Rosemary Sachs	Mono County Representative		
<input checked="" type="checkbox"/> Amanda Ward - Crafton Hills	EMT-P Training Program Representative		
<input type="checkbox"/> VACANT	ICEMA Medical Director Appointee		



San Bernardino County EMS Officer's Association

Basic / Advanced Skills Training Guidelines & Testing Manual

2020 Edition

Foreword from EMS Officers

Greetings Colleagues,

This basic and advanced skills training guidelines and testing manual is for you! The San Bernardino County EMS Officer's association has created and supports this living and breathing document. This manual is supported by industry standards and resources (NREMT and ICEMA protocols/standards) utilized in educational institutions and organizations that set a national standard for Emergency Medical Services. As this is a living document, annual revisions will be updated based on feedback from users and administrators who utilize this for education and application purposes. Please don't hesitate to forward concerns to your respective EMS Officer representative to help uphold the industry standard for all.

Best Regards,

San Bernardino County EMS Officer's Association

Basic Life Support Skills**Table of Contents**

12 Lead Electrocardiography	7
12 Lead Electrocardiography Skills Test	9
Axial Spinal Immobilization: Seated Patient	11
Axial Spinal Immobilization: Seated Patient Skills Test	12
Axial Spinal Immobilization: Supine Patient	13
Axial Spinal Immobilization: Supine Patient Skills Test	15
Bleeding Control/Shock Management	16
Bleeding Control/Shock Management Skills Test	17
Blood Glucose Analysis	18
Blood Glucose Analysis Skills Test	19
Cardiac Arrest / AED	21
Cardiac Arrest / AED Skills Test	22
HARE Traction Splint	24
HARE Traction Splint Skills Test	25
Intramuscular Medication Administration	24
Intramuscular Medication Administration Skills Test	25
Intranasal Medication Administration	28
Intranasal Medication Administration Skills Test	29
Joint Immobilization	30
Joint Immobilization Skills Test	31
King Airway Device (Perilaryngeal)	32
King Airway Device (Perilaryngeal) Skills Test	33

Basic Life Support Skills Cont.**Table of Contents**

Neonate Resuscitation Post Delivery	35
Neonate Resuscitation Post Delivery Skills Test	36
OB/Emergency Childbirth	37
OB/Emergency Childbirth Skills Test	38
Oxygen Administration	40
Oxygen Administration Skills Test	41
Patient Assessment/Management – Medical	43
Patient Assessment/Management – Medical Skills Test	44
Patient Assessment/Management – Trauma	46
Patient Assessment/Management – Trauma Skills Test	47
Penetrating Trauma	52
Pulse Oximetry	55
Pulse Oximetry Skills Test	56
SAGER Traction Splint	57
SAGER traction Splint Skills Test	58
Zoll AutoPulse	60
Zoll AutoPulse Skills Test	60

Advanced Life Support Skills**Table of Contents**

Continuous Positive Airway Pressure Device (CPAP)	63
Continuous Positive Airway Pressure Device (CPAP) Skills Test	64
End Tidal Capnography Monitoring Device	66
End Tidal Capnography Monitoring Device Skills Test	67
External Jugular Vein Access	69
External Jugular Vein Access Skills Test	70
Intraosseous Infusion	71
Intraosseous Infusion Skills Test	72
Nasogastric/Orogastric Tube Insertion	75
Nasogastric/Orogastric Tube Insertion Skills Test	76
Needle Cricothyrotomy	78
Needle Cricothyrotomy Skills Test	79
Needle Thoracostomy	81
Needle Thoracostomy Skills Test	82
Oral Endotracheal Intubation	84
Oral Endotracheal Intubation Skills Test	85
Subcutaneous Medication Administration	87
Subcutaneous Medication Administration Skills Test	88
Synchronized Cardioversion	90
Synchronized Cardioversion Skills Test	91
Transcutaneous Cardiac Pacing	93
Transcutaneous Cardiac Pacing Skills Test	94

Vagal Maneuvers	96
Vagal Maneuvers Skills Test	97
References	98

12 Lead Electrography

INDICATIONS

Patient with complaint of chest pain, with suspected or at risk of having a myocardial infarction

CONTRAINDICATIONS (Relative)

- Uncooperative patient
- Life-threatening conditions
- 12 Lead will impede immediate patient care needs

CONSIDERATIONS

Consider 12-lead ECG with atypical presentations (figure 2):

Elderly

Female

Diabetic

Unexplained or near syncope

Shortness of Breath

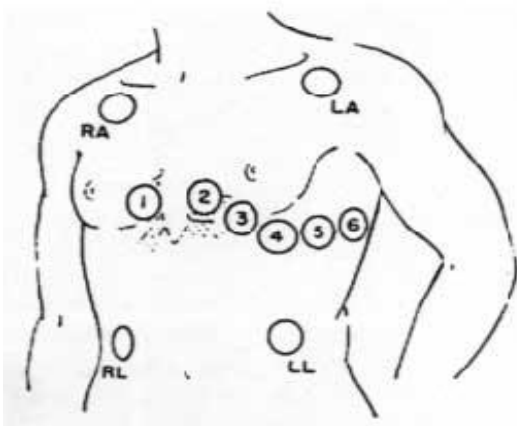
Generalized weakness (over fifty (50) years of age)

Profound weakness, acute onset

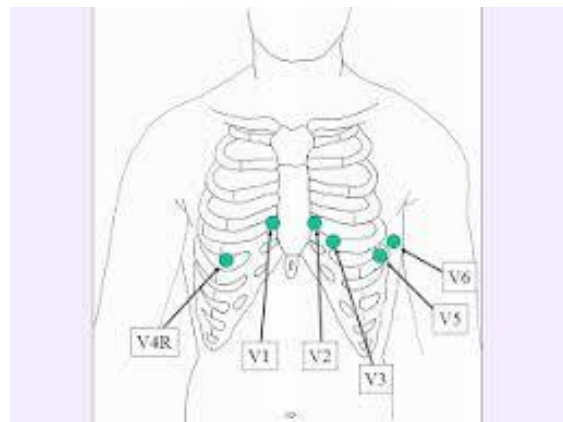
Upper abdominal discomfort

**** For suspected right sided MI, remove V4 lead and place it at the 5th intercostal space midclavicular line on the right side of the chest. Figure 1.**

Figure 1




<http://www.ems12lead.com/2008/10/17/>



<http://nuclearcardiologyseminars.com/electrocardiography>

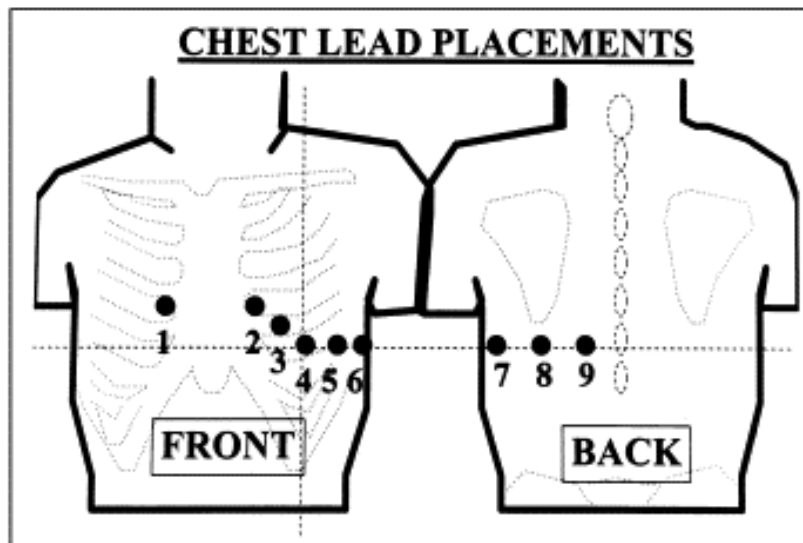
12-lead-ecg-lead-placement-diagrams/

Figure 2

			
I Lateral	aVR	V1 Septal	V4 Anterior
II Inferior	aVL Lateral	V2 Septal	V5 Lateral
III Inferior	aVF Inferior	V3 Anterior	V6 Lateral
SITE	FACING		RECIPROCAL
SEPTAL	V1, V2		NONE
ANTERIOR	V3, V4		NONE
ANTEROSEPTAL	V1, V2, V3, V4		NONE
LATERAL	I, aVL, V5, V6		II, III, aVF
ANTEROLATERAL	I, aVL, V3, V4, V5, V6		II, III, aVF
INFERIOR	II, III, aVF		I, aVL
POSTERIOR	NONE		V1, V2, V3, V4

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*15 Lead Placement



12 Lead Electrography

Skills Test

Examinee: _____ Date: _____

Examiner: _____ Pass ☐ Pass/Counsel ☐ Fail ☐

Equipment:

- 12-lead electrodes
- Cardiac monitor with 12-lead capabilities
- Razor (as needed)

Assessment/Treatment indicators:

Indications

- Patient with complaint of chest pain, with suspected or at risk of having an myocardial infarction
- Consider 12-lead ECG with atypical presentations:
 - Elderly
 - Female
 - Diabetic
 - Unexplained or near syncope
 - Shortness of Breath
 - Generalized weakness (over fifty (50) years of age)
 - Profound weakness, acute onset
 - Upper abdominal pain

Contraindications

- Uncooperative patient
- Life-threatening conditions
- Delay caused by obtaining ECG could compromise care of that patient
- 12 lead will impede immediate patient care needs

Procedure:

		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
5.	Places the patient in a preferred position of comfort (if the patient cannot tolerate being supine, obtain the ECG in Semi-Fowlers or a more upright position)	<input type="checkbox"/>	<input type="checkbox"/>
6.	Instructs the patient to place their arms down by their side and to relax their shoulders	<input type="checkbox"/>	<input type="checkbox"/>
7.	Makes sure the patient's legs are uncrossed	<input type="checkbox"/>	<input type="checkbox"/>
8.	Dries the skin if it's moist or diaphoretic	<input type="checkbox"/>	<input type="checkbox"/>

Axial Spinal Immobilization of a Seated Patient

INDICATIONS

Suspected spinal injuries; complaints of spinal pain

Determine if the patient meets criteria for full axial spinal precautions by following the indicators of the following acronym (NSAID):

N – Neuro deficit present?

S – Spinal tenderness?

A – Altered mental status?

I – Intoxication?

D – Distracting injury?

CONTRAINDICATIONS

- No contraindications

CONSIDERATIONS

For pediatric patients: If the level of the patient's head is greater than that of the torso, use an approved pediatric spine board with a head drop or arrange padding in the board to keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board.

For patients being placed on a backboard from the standing or sitting position, consider providing comfort by placing padding on the board.

Any elderly or other adult patients, who may have a spine that is normally flexed forward, should be stabilized in the patient's normal anatomical position considering spinal curvatures.

When a pregnant patient is placed in axial spinal stabilization, the board should be elevated at least four (4) inches on the left side to decrease pressure on the Inferior Vena Cava.

Certain patients may not tolerate normal stabilization positioning due to the location of additional injuries. These patients may require stabilization in their position of comfort. Additional material may be utilized to properly stabilize these patients while providing for the best possible axial spinal alignment.

ALS personnel may remove patients placed in axial spinal stabilization by first responders and BLS personnel if the patient does not meet the NSAID indicators after a complete assessment and documentation on the patient care report should be completed.

Axial Spinal Immobilization of a Seated Patient

Skills Test

Examinee: _____		Date: _____	
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>
Equipment:			
<ul style="list-style-type: none"> Cervical collar Backboard Padding (as indicated) 		<ul style="list-style-type: none"> Backboard straps Spinal motion restriction device 	
Assessment/Treatment indicators:			
<u>Indications</u>		<u>Contraindications</u>	
<ul style="list-style-type: none"> Per NSAID acronym 		<ul style="list-style-type: none"> Per NSAID acronym 	
Procedure:		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
5.	Directs assistant to place/maintain head in the neutral, in-line position	<input type="checkbox"/>	<input type="checkbox"/>
6.	Reassesses motor, sensory, and circulatory function in each extremity	<input type="checkbox"/>	<input type="checkbox"/>
7.	Applies appropriately sized extrication/cervical collar	<input type="checkbox"/>	<input type="checkbox"/>
8.	Positions the immobilization device appropriately	<input type="checkbox"/>	<input type="checkbox"/>
9.	Directs movement of the patient onto the backboard without compromising the integrity of the spine	<input type="checkbox"/>	<input type="checkbox"/>
10.	Applies padding to voids between the torso and the device as necessary	<input type="checkbox"/>	<input type="checkbox"/>
11.	Immobilizes the patient's torso to the device	<input type="checkbox"/>	<input type="checkbox"/>
12.	Evaluates and pads behind the patient's head as necessary	<input type="checkbox"/>	<input type="checkbox"/>
13.	Immobilizes the patient's head to the device	<input type="checkbox"/>	<input type="checkbox"/>
14.	Secures the patient's arms and legs to the device	<input type="checkbox"/>	<input type="checkbox"/>
15.	Reassess/Document: <ul style="list-style-type: none"> Patient Reassessment of motor, sensory, and circulatory function in each extremity Patient response/tolerance to intervention 	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

Axial Spinal Immobilization of a Supine Patient

INDICATIONS

Determine if the patient meets criteria for full axial spinal precautions by following the indicators of the following acronym (NSAID):

- N** – Neuro deficit present?
- S** – Spinal tenderness?
- A** – Altered mental status?
- I** – Intoxication?
- D** – Distracting injury?

CONTRAINDICATIONS

- Penetrating trauma without any NSAID indicators are not candidates for spinal immobilization using long board.

CONSIDERATIONS

Maintain spinal alignment on the gurney, or using spinal axial immobilization on an awake, alert and cooperative patient, without the use of a rigid spine board.

For patients being placed in spinal immobilization, provide comfort by placing padding on board

For standing patients with the complaint of neck or back pain; consider placement on a backboard while the patient remains in the standing position, executing the standing takedown technique.

For pediatric patients: use an approved pediatric spine board with a head drop or arrange padding on the board to keep the entire lower spine and pelvis in line with the cervical spine and parallel to the board. All intubated neonatal and pediatric patients should be placed in full axial spinal immobilization.

Any elderly or other adult patients should be stabilized in patient's normal anatomical position.

Pregnant patients placed in axial spinal stabilization, board should be elevated at least four (4) inches on the left side to decrease pressure on the Inferior Vena Cava.

Certain patients may not tolerate normal stabilization positioning due to the location of additional injuries. These patients may require stabilization in their position of comfort.

ALS personnel may remove patients placed in axial spinal stabilization by first responders and BLS personnel if the patient does not meet the NSAID indicators after assessment.

***** Age of the patient, co-morbidities (osteoporosis, etc.) should always be a priority in the decision-making process.***

***** The long backboard (LBB) is an extrication tool, whose purpose is to facilitate the transfer of a patient to a transport stretcher and is not intended, or appropriate for achieving spinal stabilization. Judicious application of the LBB for purposes other than extrication necessitates that healthcare providers ensure the benefits outweigh the risks. If a LBB is applied for any reason, patients should be removed as soon as it is safe and practical. LBB does not need to be reapplied on interfacility transfer (IFT) patients.***

Axial Spinal Immobilization of a Supine Patient

Skills Test

Examinee: _____		Date: _____	
Examiner: _____		Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>	
Equipment:			
<ul style="list-style-type: none"> Cervical collar Backboard Padding (as indicated) 		<ul style="list-style-type: none"> Backboard straps Head bed/ towel rolls / head blocks 	
Assessment/Treatment indicators:			
<u>Indications</u>		<u>Contraindications</u>	
<ul style="list-style-type: none"> Per NSAID acronym 		<ul style="list-style-type: none"> Per NSAID acronym Penetrating trauma without any NSAID indicators 	
Procedure:		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
5.	Directs assistant to place/maintain head in the neutral, in-line position	<input type="checkbox"/>	<input type="checkbox"/>
6.	Reassesses motor, sensory, and circulatory function in each extremity	<input type="checkbox"/>	<input type="checkbox"/>
7.	Applies appropriately sized extrication/cervical collar	<input type="checkbox"/>	<input type="checkbox"/>
8.	Positions the immobilization device appropriately	<input type="checkbox"/>	<input type="checkbox"/>
9.	Directs movement of the patient onto the backboard without compromising the integrity of the spine	<input type="checkbox"/>	<input type="checkbox"/>
10.	Applies padding to voids between the torso and the device as necessary	<input type="checkbox"/>	<input type="checkbox"/>
11.	Immobilizes the patient's torso to the device	<input type="checkbox"/>	<input type="checkbox"/>
12.	Evaluates and pads behind the patient's head as necessary	<input type="checkbox"/>	<input type="checkbox"/>
13.	Secures the patient's arms and legs to the device	<input type="checkbox"/>	<input type="checkbox"/>
14.	Immobilizes the patient's head to the device	<input type="checkbox"/>	<input type="checkbox"/>
15.	Reassess/Document: <ul style="list-style-type: none"> Patient Motor, sensory, and circulatory function in each extremity Patient response/tolerance to intervention 	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

Bleeding Control/Shock Management

INDICATIONS

Patient with blunt or penetrating trauma with active hemorrhage

CONTRAINDICATIONS (Relative)

- No contraindications

CONSIDERATIONS

Cut and expose wound

Consider proper equipment needed for specific hemorrhage control

Consider appropriate manufacturer's guidelines for specific tourniquet application

Consider proper equipment needed for the treatment of shock

Destination, time and specialty center required, need for HERT team

**** Consider oxygen administration (follow oxygen administration guidelines)**

Bleeding Control/Shock Management

Skills Test

Examinee: _____				Date: _____	
Examiner: _____		Pass	<input type="checkbox"/>	Pass/Counsel	<input type="checkbox"/>
		Fail	<input type="checkbox"/>		
Equipment:					
<ul style="list-style-type: none"> BSI equipment Absorbent material Bandaging material Oxygen/ Oxygen delivery system 		<ul style="list-style-type: none"> Blanket Tourniquets (Swat-T, Soft-T) Quik-clot for junctional wounds Israeli bandages – pressure dressings 			
Assessment/Treatment indicators:					
<u>Indications</u>			<u>Contraindications</u>		
<ul style="list-style-type: none"> Signs of active hemorrhage 			<ul style="list-style-type: none"> No contraindications 		
Procedure:				Yes	No
1.	Scene safety awareness/PPE usage			<input type="checkbox"/>	<input type="checkbox"/>
2.	Applies direct pressure to the wound			<input type="checkbox"/>	<input type="checkbox"/>
The examiner advises “The wound continues to bleed.”					
3.	Applies tourniquet appropriately			<input type="checkbox"/>	<input type="checkbox"/>
The examiner advises “The patient is now exhibiting signs and symptoms of hypoperfusion.”					
4.	Properly positions the patient			<input type="checkbox"/>	<input type="checkbox"/>
5.	Administers high concentration oxygen (According to NAEMT and/or ICEMA protocol)			<input type="checkbox"/>	<input type="checkbox"/>
6.	Initiates steps to prevent heat loss from the patient			<input type="checkbox"/>	<input type="checkbox"/>
7.	Indicates the need for immediate transport			<input type="checkbox"/>	<input type="checkbox"/>
8.	Reassess/Document: <ul style="list-style-type: none"> Patient Motor, sensory, and circulatory function in each extremity Patient response/tolerance to intervention 			<input type="checkbox"/>	<input type="checkbox"/>
Notes:					

Blood Glucose Analysis

INDICATIONS

- Altered mental status
- Neurological dysfunction
- History of diabetes
- Vague or general symptoms or complaints
- Need to reassess following treatment of hypoglycemia

CONTRAINDICATIONS (Relative)

Recognize contraindications to blood sampling site selection:

- Signs of local infection
- Wounds or bleeding

CONSIDERATIONS

Reassess unusual and/or unexpected glucometer results

Blood Glucose Analysis

Skills Test

Examinee: _____

Date: _____

Examiner: _____

Pass ☐ Pass/Counsel ☐ Fail ☐**Equipment:**

- | | |
|-----------------------|--------------------|
| • BSI Equipment / PPE | • Sharps container |
| • Glucometer | • Lancet(s) |
| • Alcohol preps | • Bandage |

Assessment/Treatment indicators:**Indications**

- Altered Mental Status
- Neurological dysfunction
- History Diabetes
- Vague or General symptoms or complaints
- Need to reassess following treatment of hypoglycemia

Contraindications**(Relative)**

- Local infection, Wounds or bleeding at blood sampling site

Procedure:**Yes****No**

1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Gathers appropriate equipment glucometer, test strip, lancet, alcohol prep	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure to patient	<input type="checkbox"/>	<input type="checkbox"/>
5.	Prepares glucometer: inserts test strip, ensure glucometer is ready to receive blood	<input type="checkbox"/>	<input type="checkbox"/>
6.	Select appropriate site Adult / Pediatric <ul style="list-style-type: none"> • Fingertip side Infant (less than one year) <ul style="list-style-type: none"> • Heel of foot 	<input type="checkbox"/>	<input type="checkbox"/>
7.	Use alcohol to clean site, allow site to dry completely before utilizing lancet	<input type="checkbox"/>	<input type="checkbox"/>
8.	Obtain blood sample: prick the site with lancet	<input type="checkbox"/>	<input type="checkbox"/>
9.	Allow blood drop to form, transfer blood sample to the test strip following manufacturer's guidelines	<input type="checkbox"/>	<input type="checkbox"/>

Cardiac Arrest and AED

INDICATIONS

Cardiac/Respiratory Arrest

CONTRAINDICATIONS

- DNR
- POLST directives
- End of Life Option Act

CONSIDERATIONS:

Ensure enough space to properly perform CPR with several rescuers

Remove patient from standing water

Place patient in supine position

Determine probable cause of the arrest

***** AED patches should not be placed over implanted medical devices, jewelry or transdermal medication patches***

Cardiac Arrest and AED

Skills Test

Examinee: _____				Date: _____	
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/>	Fail <input type="checkbox"/>	
Equipment:					
• PPE			• AED		
Assessment/Treatment indicators:					
<u>Indications</u>			<u>Contraindications</u>		
<ul style="list-style-type: none"> Cardiac/Respiratory arrest 			<ul style="list-style-type: none"> DNR POLST directives End of Life Option Act 		
Procedure:				Yes	No
1.	Scene safety awareness/PPE usage			<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications			<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment			<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure			<input type="checkbox"/>	<input type="checkbox"/>
5.	Attempts to obtain information about event from bystanders			<input type="checkbox"/>	<input type="checkbox"/>
6.	Checks patient responsiveness, assess for signs of breathing (agonal, apneic, gasping) and carotid pulse (no more than 10 seconds)			<input type="checkbox"/>	<input type="checkbox"/>
7.	Immediately begins high performance chest compressions with appropriate rate and depth while allowing for complete chest recoil			<input type="checkbox"/>	<input type="checkbox"/>
8.	Requests additional assistance (as needed)			<input type="checkbox"/>	<input type="checkbox"/>
9.	Performs 2 minutes (5 cycles) of high performance (1 or 2-person) CPR			<input type="checkbox"/>	<input type="checkbox"/>
10.	After 2 minutes, switches out rescuer performing compressions			<input type="checkbox"/>	<input type="checkbox"/>
11.	When AED arrives, first rescuer turns it on			<input type="checkbox"/>	<input type="checkbox"/>
12.	Follows initial AED prompts			<input type="checkbox"/>	<input type="checkbox"/>
13.	Correctly attaches pads to patient ** Avoids placing pads over implanted medical devices or medication patches			<input type="checkbox"/>	<input type="checkbox"/>
14.	Follows additional AED prompts to clear and analyze rhythm			<input type="checkbox"/>	<input type="checkbox"/>
15.	If shock advised, ensures the patient is clear of all bystanders and provides shock per AED instructions			<input type="checkbox"/>	<input type="checkbox"/>
16.	Ensures effective chest compressions are immediately resumed			<input type="checkbox"/>	<input type="checkbox"/>

17.	Reassess/Document: <ul style="list-style-type: none">• Patient• Patient response/tolerance to interventions	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

HARE Traction Splint Device

INDICATIONS

- Painful, swollen, deformed mid-thigh with no joint or lower leg injury

CONTRAINDICATIONS

- Open fracture
- Pelvis, hip, knee, ankle injury
- Excessive avulsion
- Partial amputation

CONSIDERATIONS

Utilize three rescuers to apply a traction splint, if possible

HARE Traction Splint

Skills Test

Examinee: _____				Date: _____			
Examiner: _____				Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>			
Equipment:							
• PPE				• HARE Traction Splint			
Assessment/Treatment indicators:							
<u>Indications</u>				<u>Contraindications</u>			
<ul style="list-style-type: none"> Painful, swollen, deformed mid-thigh with no joint or lower leg injury 				<ul style="list-style-type: none"> Open fracture Pelvis, hip, knee, ankle injury Excessive avulsion Partial amputation 			
Procedure:						Yes	No
1.	Scene safety awareness/PPE usage					<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications					<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment					<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure					<input type="checkbox"/>	<input type="checkbox"/>
5.	Directs assistant to stabilize the injured leg					<input type="checkbox"/>	<input type="checkbox"/>
6.	Exposes the injured extremity					<input type="checkbox"/>	<input type="checkbox"/>
7.	Removes shoe and sock on injured leg					<input type="checkbox"/>	<input type="checkbox"/>
8.	Checks the circulation, motor and sensory function distal to the injury before moving leg or applying traction					<input type="checkbox"/>	<input type="checkbox"/>
9.	Positions the device parallel to the uninjured leg and adjusts the length to 10 inches beyond the foot					<input type="checkbox"/>	<input type="checkbox"/>
10.	Spaces the straps to support the upper and lower leg					<input type="checkbox"/>	<input type="checkbox"/>
11.	Applies the foot strap to the injured leg					<input type="checkbox"/>	<input type="checkbox"/>
12.	While supporting the fracture site, directs the assistant to elevate the injured leg while maintaining continuous traction					<input type="checkbox"/>	<input type="checkbox"/>
13.	Positions the device under the injured leg with the top portion firmly against the ischium					<input type="checkbox"/>	<input type="checkbox"/>
14.	Directs the assistant to lower the leg onto the device while maintaining traction					<input type="checkbox"/>	<input type="checkbox"/>
15.	Secures the groin strap prior to application of mechanical traction					<input type="checkbox"/>	<input type="checkbox"/>
16.	Attaches the foot strap rings to winch and twists knob to apply mechanical traction					<input type="checkbox"/>	<input type="checkbox"/>

Intramuscular Medication Administration

INDICATIONS

- Unable to establish IV for medication administration
- Desired route for administration of medication

CONTRAINDICATIONS (Relative)

If any of the following are noted at the site select a different site:

- Masses
- Tenderness
- Bruising
- Infection
- Abrasions
- Swelling

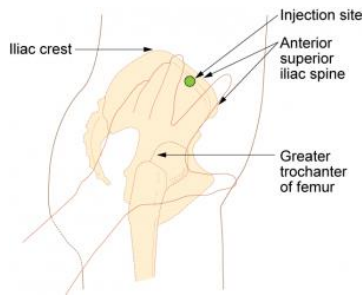
Intramuscular Medication Administration

Skills Test

Examinee: _____		Date: _____	
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>
Equipment:			
<ul style="list-style-type: none"> BSI equipment Syringe Alcohol Prep 		<ul style="list-style-type: none"> Safety Needles (20-25g; 5/8 to 1 ½ inches in length) Bandage 	
Assessment/Treatment indicators:			
<p style="text-align: center;"><u>Indications</u></p> <ul style="list-style-type: none"> Unable to establish IV for medication administration Desired route for administration of medication 		<p style="text-align: center;"><u>Contraindications (relative to site)</u></p> <ul style="list-style-type: none"> Masses Tenderness Bruising Infection Abrasions Swelling 	
Procedure:		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindication	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares and checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure to patient/family	<input type="checkbox"/>	<input type="checkbox"/>
5.	Inspects desired site for contraindications	<input type="checkbox"/>	<input type="checkbox"/>
6.	Chooses appropriate medication	<input type="checkbox"/>	<input type="checkbox"/>
7.	Inspect site for sufficient muscle mass	<input type="checkbox"/>	<input type="checkbox"/>
8.	Withdraws medication	<input type="checkbox"/>	<input type="checkbox"/>
8a.	Verbalizes no more than recommended solution per site: Deltoid (Upper Arm) (2ml) Vastus Lateralis (Anterior Thigh) (3mL) Ventrogluteal (Lateral Hip) (3mL)	<input type="checkbox"/>	<input type="checkbox"/>
9.	Position patient and prepare site	<input type="checkbox"/>	<input type="checkbox"/>
10.	Remove air from needle (Push slightly on the plunger to bring a drop of solution to the level of the bevel of the needle)	<input type="checkbox"/>	<input type="checkbox"/>
11.	Support the muscle to be injected (Without contaminating the site spread skin tight with non-dominant hand)	<input type="checkbox"/>	<input type="checkbox"/>
12.	Insert needle with a dart like motion into site at 90° angle and stabilize hub of syringe and aspirate for no blood return (no blood return indicates proper placement)	<input type="checkbox"/>	<input type="checkbox"/>

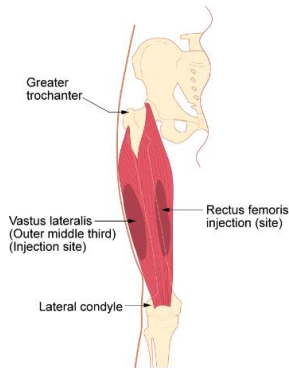
13.	Slowly inject medication to reduce pain and tissue trauma	<input type="checkbox"/>	<input type="checkbox"/>
14.	Withdraw needle and properly disposes needle and syringe	<input type="checkbox"/>	<input type="checkbox"/>
15.	Applies direct pressure, massages site and apply bandage as needed	<input type="checkbox"/>	<input type="checkbox"/>
13.	Reassess/Document: <ul style="list-style-type: none"> • Patient • Medication and dosage given • Administration success • Patient response/tolerance to intervention 	<input type="checkbox"/>	<input type="checkbox"/>
Notes: 			

Ventrogluteal



Recommended needle length is based on patient weight and body mass index. Thin adult may require a 16 mm to 25 mm (5/8 to 1 inch) needle, average adult may require a 25 mm (1 inch) needle, larger adult (over 70 kg) may require a 25 mm to 38 mm (1 to 1 1/2 inch) needle. Children and infants will require shorter needles.

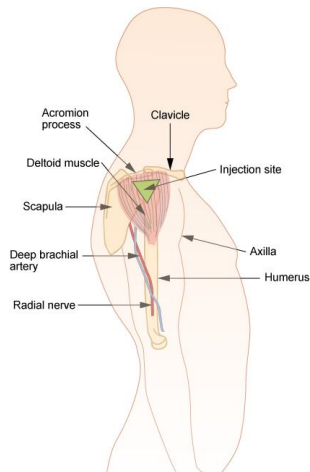
For the ventrogluteal muscle of an average adult, give up to 3 ml of medication.



Vastus Lateralis

Recommended needle length for an adult is 25 mm to 38 mm (1 to 1 1/2 inch). A smaller gauge needle (22 to 25 gauge) should be used with children.

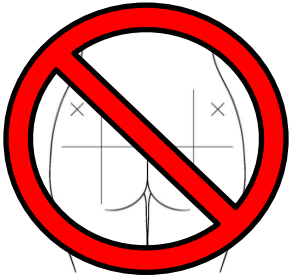
The maximum amount of medication for a single injection is 3 ml.



Deltoid

Select needle length based on age, weight, and body mass. In general, for an adult male weighing 60 to 118 kg (130 to 260 lbs), a 25 mm (1 inch) needle is sufficient. For women under 60 kg (130 lbs), a 16 mm (5/8 inch) needle is sufficient, while for women between 60 and 90 kg (130 to 200 lbs), a 25 mm (1 inch) needle is required. A 38mm (1 1/2 inch) length needle may be required for women over 90 kg (200 lbs) for a deltoid IM injection. The maximum amount of medication for a single injection is 1 ml.

Dorsalgluteal muscle (Gluteus Maximus)



NEVER give an IM injection in the dorsogluteal muscle.

If the needle hits the sciatic nerve, the patient may experience **partial or permanent** paralysis of the leg.

AJN, American Journal of Nursing, April 1996, Volume: 96 Number 4, page 53 retrieved from:
https://www.nursingcenter.com/journalarticle?Article_ID=102892&Journal_ID=54030&Issue_ID=54821
<https://opentextbc.ca/clinicalskills/chapter/6-8-iv-push-medications-and-saline-lock-flush/>

Data source: Berman & Snyder, 2016; Davidson & Rourke, 2014; Ogston-Tuck, 2014a; Perry et al., 2014

Intranasal Medication Administration

INDICATIONS

Unable to establish IV for medication administration

Desired route for administration of medication

CONTRAINDICATIONS (Relative)

- Significant nasal trauma
- Significant amount of blood or dried mucous discharge

Intranasal Medication Administration

Skills Test

Examinee: _____ Date: _____ Examiner: _____ Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>				
Equipment:				
<ul style="list-style-type: none"> • BSI Equipment 		<ul style="list-style-type: none"> • Mucosal Atomization Device (MAD) or other IN medication device 		
Assessment/Treatment indicators:				
Indications <ul style="list-style-type: none"> • Unable to establish IV for medication administration • Desired route for administration of medication 		Contraindications <ul style="list-style-type: none"> • Significant nasal trauma • Significant amount of blood or dried mucous discharge 		
Procedure:			Yes	No
1.	Scene safety awareness/PPE usage		<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications		<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment		<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure to patient/family		<input type="checkbox"/>	<input type="checkbox"/>
5.	Inspects the nostril for significant amount of mucus and/or blood		<input type="checkbox"/>	<input type="checkbox"/>
6.	Chooses appropriate medication		<input type="checkbox"/>	<input type="checkbox"/>
7.	Withdraws medication		<input type="checkbox"/>	<input type="checkbox"/>
8.	Places the administration end of IN device in the nostril (If repeating dose, if possible, use opposite nostril)		<input type="checkbox"/>	<input type="checkbox"/>
	8a. Verbalizes no more than 1mL of solution should be administered in each nostril		<input type="checkbox"/>	<input type="checkbox"/>
9.	Reassess/Document: <ul style="list-style-type: none"> • Patient • Medication and dosage given • Administration success • Patient response/tolerance to intervention 		<input type="checkbox"/>	<input type="checkbox"/>
Notes:				

Joint Immobilization

INDICATIONS

Signs of possible dislocation or fracture of a joint including pain, deformity, crepitus, or swelling to a joint

CONTRAINDICATIONS (Relative)

- No contraindications

CONSIDERATIONS

Cut and expose affected extremity
Prepare equipment for joint immobilization

Joint Immobilization

Skills Test

Examinee: _____

Date: _____

Examiner: _____

Pass ☐ Pass/Counsel ☐ Fail ☐**Equipment:**

- BSI equipment
- Splint, roller bandage, and/or tape
- Padding

Assessment/Treatment indicators:**Indications**

- Signs of possible dislocation or fracture of joint deformity, crepitus, or swelling of joint.

Contraindications

- No contraindications

Procedure:**Yes****No**

1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	Directs application of manual stabilization of injury	<input type="checkbox"/>	<input type="checkbox"/>
3.	Assesses distal motor, sensory, or circulatory functions in the injured extremity, compares with uninjured extremity	<input type="checkbox"/>	<input type="checkbox"/>
The examiner advises "Motor, sensory and circulatory functions are present and normal."			
4.	Selects the proper splinting material	<input type="checkbox"/>	<input type="checkbox"/>
5.	Immobilizes the site of injury	<input type="checkbox"/>	<input type="checkbox"/>
6.	Immobilizes the bone above the injury site	<input type="checkbox"/>	<input type="checkbox"/>
7.	Immobilizes the bone below the injury site	<input type="checkbox"/>	<input type="checkbox"/>
8.	Secures the entire injured extremity is secured	<input type="checkbox"/>	<input type="checkbox"/>
9.	Reassesses distal motor, sensory and circulatory functions in the injured extremity	<input type="checkbox"/>	<input type="checkbox"/>
10.	Reassess/Document: <ul style="list-style-type: none"> • Patient, pain scale • Patient response/tolerance to interventions 	<input type="checkbox"/>	<input type="checkbox"/>

The examiner advises "Motor, sensory and circulatory functions are present and normal."

Notes:

King Airway Device (Perilaryngeal)

INDICATIONS

Use of King Airway may be performed on those patients who meet **ALL** of the following:

Unresponsive and apneic (less than 6 breaths per minute)

No gag reflex

Appropriately sized airway

	Height	Weight	Size	Connector Color	Recommended Air Volume
•	48-60" or 4-5 feet:		Size 3	YELLOW	60 mL
•	60-72" or 5-6 feet:		Size 4	RED	80 mL
•	≥ 72" or ≥6 feet:		Size 5	PURPLE	90 mL

CONTRAINDICATIONS

- Conscious patients with an intact gag reflex
- Known ingestion of caustic substances
- Suspected foreign body airway obstruction (FBAO)
- Facial and/or esophageal trauma
- Patients with known esophageal disease (cancer, varices, surgery, etc.)

CONSIDERATIONS

No considerations

King Airway Device (Perilaryngeal)

Skills Test

Examinee: _____ Date: _____ Examiner: _____ Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>				
Equipment:				
<ul style="list-style-type: none"> Appropriately sized King LTS-D Syringe <ul style="list-style-type: none"> BVM Water based lubricant 				
Assessment/Treatment indicators:				
<u>Indications</u> Use of King Airway may be performed on those patients who meeting ALL of the following: <ul style="list-style-type: none"> Unresponsive and apneic (less than 6 breaths per minute) No gag reflex Appropriately sized airway 		<u>Contraindications</u> <ul style="list-style-type: none"> Conscious patients with an intact gag reflex Known ingestion of caustic substances Suspected foreign body airway obstruction (FBAO) Facial and/or esophageal trauma Patients with known esophageal disease (cancer, varices, surgery, etc.) 		
Procedure:			Yes	No
1.	Scene safety awareness/PPE usage		<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications		<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment		<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure		<input type="checkbox"/>	<input type="checkbox"/>
5.	Chooses the appropriately sized King Airway based on patient height		<input type="checkbox"/>	<input type="checkbox"/>
6.	Tests cuff inflation system by injecting the maximum recommended volume of air into the cuffs (Prior to insertion, disconnect valve actuator from inflation valve and remove all the air from both cuffs)		<input type="checkbox"/>	<input type="checkbox"/>
7.	Applies water-based lubricant to the beveled distal tip and posterior aspect of the tube taking care to avoid introduction of lubricant in or near the ventilator openings		<input type="checkbox"/>	<input type="checkbox"/>
8.	Pre-oxygenates patient with 100% oxygen through BVM		<input type="checkbox"/>	<input type="checkbox"/>
9.	Positions patient in the "sniffing position", if no cervical spine injury suspected		<input type="checkbox"/>	<input type="checkbox"/>
10.	Holds the KING LTS-D at the connector with dominant hand (with non-dominate hand, hold mouth open and apply chin lift)		<input type="checkbox"/>	<input type="checkbox"/>
11.	With the KING LTS-D rotated laterally 45-90%, introduces tip into mouth and advance behind base of tongue		<input type="checkbox"/>	<input type="checkbox"/>
12.	Rotates the tube back to the midline as the tip reaches the posterior wall of the pharynx		<input type="checkbox"/>	<input type="checkbox"/>
13.	Advances KING LTS-D until base of connector is aligned with teeth or gums without exerting excessive force		<input type="checkbox"/>	<input type="checkbox"/>

Neonate Resuscitation Post Delivery

INDICATIONS

Cardiac/Respiratory Arrest post delivery

CONTRAINDICATIONS

- Known still birth

CONSIDERATIONS:

Two patients

Have second EMS personnel support mother emotionally

Continued medical support for mother

Neonate Resuscitation Post Delivery

Skills Test

Examinee: _____ Date: _____ Examiner: _____ Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>			
Equipment:			
<div style="display: flex; justify-content: space-between;"> <ul style="list-style-type: none"> BSI Equipment / PPE Obstetric Kit Infant BVM <ul style="list-style-type: none"> Oxygen OPA </div>			
Assessment/Treatment indicators:			
<u>Indications</u>		<u>Contraindications</u>	
<ul style="list-style-type: none"> Cardiac / Respiratory arrest post-delivery to neonate 		<ul style="list-style-type: none"> Known still birth 	
Procedure:			Yes
No			
1.	After birth assess new born: good tone, breathing or crying Check heart rate >60 if <60 continue to #3	<input type="checkbox"/>	<input type="checkbox"/>
2.	If infant is breathing appropriate rate or crying: Warm and maintain normal temperature, position airway, clear secretions if needed, dry. Then give to mother for continued care.	<input type="checkbox"/>	<input type="checkbox"/>
3.	If not breathing or agonal respirations Airway: Open airway, suction if needed, position Breathing: Provide oxygen in high concentration, nonrebreather or assist ventilations as indicated (e.g., BVM) Circulation: Assess perfusion, perform chest compressions as indicated (i.e. HR <60/min with poor perfusion). All rates and procedures shall adhere to AHA guidelines.	<input type="checkbox"/>	<input type="checkbox"/>
4.	Emotional support to mother and family.	<input type="checkbox"/>	<input type="checkbox"/>
5.	Continue to reassess and transport; keep infant warm.	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

OB/Emergency Childbirth

INDICATIONS

Patient with complaint of severe abdominal pain and signs of imminent birth

CONTRAINDICATIONS (Relative)

Consider rapid transport if the following is found:

- Mother has uncontrolled hemorrhage with no imminent signs of delivery
- Limb or cord presentation is visualized at the vaginal opening

CONSIDERATIONS:

Assess the patient by asking the following questions:

- a) Have you had prenatal care?
- b) Have you had any past pregnancies?
- c) How many live deliveries have you had in the past?
- d) What is your expected due date?
- e) Do you have the urge to bare down?
- f) Have you had excessive fluid; BOW broken or plug passed?
- g) What have been the length and frequency of contractions?
- h) Are there any expected complications?

Consider preparing for in place delivery if the following is found:

Mother has the urge to push
Mother states water has broken
Bulging or crowning of the perineum is noted
Contractions are less than three minutes apart lasting 30 seconds or longer

Place the patient in a supine or semi-Fowler's position

Instruct the patient to focus on breathing and notify you when contractions start and stop

OB/Emergency Childbirth

Skills Test

Examinee: _____ Date: _____			
Examiner: _____ Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>			
Equipment:			
<ul style="list-style-type: none"> BSI equipment Obstetric kit 			
Assessment/Treatment indicators:			
<u>Indications</u>		<u>Contraindications</u>	
<ul style="list-style-type: none"> Signs of imminent delivery History of pregnancy with urge to push or bear down 		<ul style="list-style-type: none"> Limb presentation at vaginal opening Respiratory or cardiac failure 	
Procedure:			Yes
No			
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Asks patient appropriate assessment questions	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains and reassures the need to check for crowning or abnormal bleeding	<input type="checkbox"/>	<input type="checkbox"/>
5.	Observes for presentation of prolapsed cord or abnormal presentation	<input type="checkbox"/>	<input type="checkbox"/>
6.	Opens OB kit, cleans and drapes the area, being sure to keep a sterile zone	<input type="checkbox"/>	<input type="checkbox"/>
7.	Appropriately dons sterile gloves	<input type="checkbox"/>	<input type="checkbox"/>
8.	Explains procedure to patient before placing one hand to the baby's head applying gentle pressure to prevent explosive birth	<input type="checkbox"/>	<input type="checkbox"/>
9.	Uses second hand to apply gentle pressure to the perineum to prevent tearing of the opening	<input type="checkbox"/>	<input type="checkbox"/>
10.	Observes for nuchal cord	<input type="checkbox"/>	<input type="checkbox"/>
The examiner advises "The cord is wrapped around the baby's neck."			
11.	Loosens and slips cord over baby's head	<input type="checkbox"/>	<input type="checkbox"/>
12.	Suctions mouth, then nose (once head is delivered)	<input type="checkbox"/>	<input type="checkbox"/>
13.	Applies gentle upward and downward pressure to head to help release the upper shoulders	<input type="checkbox"/>	<input type="checkbox"/>
14.	Once delivery is complete, holds baby securely	<input type="checkbox"/>	<input type="checkbox"/>
15.	Notes the time of birth and initial A-P-G-A-R	<input type="checkbox"/>	<input type="checkbox"/>
The examiner advises "The baby is out, has a pulse, but is not breathing."			
16.	Provides tactile stimulation while drying the baby and rubbing the feet	<input type="checkbox"/>	<input type="checkbox"/>
The examiner notifies "The baby is now crying."			

17.	Wraps the baby in a blanket, places hat on baby's head for warmth	<input type="checkbox"/>	<input type="checkbox"/>
18.	Verifies cord is no longer pulsating, clamps cord approximately 6 and 8 inches away from baby, verbalizing the cutting of the cord	<input type="checkbox"/>	<input type="checkbox"/>
19.	Gives baby to mother/encourages bonding and warmth	<input type="checkbox"/>	<input type="checkbox"/>
20.	Massages fundus, states why this is necessary	<input type="checkbox"/>	<input type="checkbox"/>
21.	Mother delivers placenta; places placenta in biohazard safe bag	<input type="checkbox"/>	<input type="checkbox"/>
22.	Places sanitary pad; have mom lower and close legs and assume position of comfort	<input type="checkbox"/>	<input type="checkbox"/>
23.	Addresses the need to observe and treat possible bleeding control of mother	<input type="checkbox"/>	<input type="checkbox"/>
24.	Reassess/Document: <ul style="list-style-type: none"> • Patient • Newborn, document A-P-G-A-R at 1 and 5 minutes 	<input type="checkbox"/>	<input type="checkbox"/>

Apgar Scoring System

Indicator		0 Points	1 Point	2 Points
A	Activity (muscle tone)	Absent	Flexed arms and legs	Active
P	Pulse	Absent	Below 100 bpm	Over 100 bpm
G	Grimace (reflex irritability)	Floppy	Minimal response to stimulation	Prompt response to stimulation
A	Appearance (skin color)	Blue; pale	Pink body, Blue extremities	Pink
R	Respiration	Absent	Slow and irregular	Vigorous cry

**** Assess Apgar at 1 and 5 minutes on all newborns**

<https://www.abclawcenters.com/practice-areas/diagnostic-tests/apgar-score-for-assessment-of-the-newborn/>

Oxygen Administration

INDICATIONS

Patient complains of shortness of breath and/or chest pain

Signs and symptoms of chronic pulmonary disease, shortness of breath, coughing, wheezing, desaturation, pursed lip breathing, anxiety, accessory muscle use, cyanosis, decreased breath sounds, or ALOC

CONTRAINDICATIONS

- No contraindications, be cautious of potential for hyper-oxygenation

CONSIDERATIONS

Oxygen needs of the patient

Verbalizes oxygen parameters set forth by ICEMA:

- **Hypoxia:** Titrate O₂ at lower rate to maintain SP0₂ at 94%
 - **Verbalizes understanding: No O₂ for SP0₂ >95%**
- **COPD:** Titrate O₂ at lower rate to maintain SP0₂ at 90%
 - **Verbalizes understanding: No O₂ for SP0₂ >91%**

Oxygen Administration

Skills Test

Examinee: _____		Date: _____		
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>	
Equipment:				
<ul style="list-style-type: none"> • PPE • Nasal cannula, simple mask or Non-rebreather mask 		<ul style="list-style-type: none"> • Oxygen tank • Oxygen regulator • Monitor with SpO2 capabilities 		
Assessment/Treatment indicators:				
<p style="text-align: center;"><u>Indications</u></p> <ul style="list-style-type: none"> • Patient complains of shortness of breath and/or chest pain • Signs and symptoms of chronic pulmonary disease, shortness of breath, coughing, wheezing, desaturation, pursed lip breathing, anxiety, accessory muscle use, cyanosis, decreased breath sounds, or ALOC 		<p style="text-align: center;"><u>Contraindications</u></p> <ul style="list-style-type: none"> • No contraindications 		
Procedure:			Yes	No
1.	Scene safety awareness/PPE usage		<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications		<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment		<input type="checkbox"/>	<input type="checkbox"/>
4.	Checks the “five patient rights, plus one” <ul style="list-style-type: none"> • Right patient • Right medication • Right dose • Right route • Right time • Allergies <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div></div> <div> D-Dose/Drug I- Integrity of packaging C-Clarity of solution E-Expiration Date </div> </div>		<input type="checkbox"/>	<input type="checkbox"/>
5.	Explains procedure		<input type="checkbox"/>	<input type="checkbox"/>
6.	Gathers appropriate equipment (i.e. oxygen tank, nasal cannula, simple mask, non-rebreather mask)		<input type="checkbox"/>	<input type="checkbox"/>
7.	Cracks valve on the oxygen tank		<input type="checkbox"/>	<input type="checkbox"/>
8.	Assembles the regulator to the oxygen tank		<input type="checkbox"/>	<input type="checkbox"/>
9.	Opens the oxygen tank valve		<input type="checkbox"/>	<input type="checkbox"/>
10.	Checks the oxygen tank pressure		<input type="checkbox"/>	<input type="checkbox"/>
11.	Checks for leaks		<input type="checkbox"/>	<input type="checkbox"/>
12.	Attaches (nasal cannula, simple or non-rebreather mask) to correct port of regulator		<input type="checkbox"/>	<input type="checkbox"/>
13.	Adjusts regulator to ensure oxygen flow rate appropriately per delivery device <ul style="list-style-type: none"> • Nasal cannula – 1 to 6 LPM • Simple mask – 8 to 12 LPM 		<input type="checkbox"/>	<input type="checkbox"/>

Patient Assessment/Management-MEDICAL

INDICATIONS

Patient with a medical complain

CONTRAINDICATIONS (Relative)

- No contraindications

CONSIDERATIONS

Considers stabilization of the spine as needed

Patient Assessment/Management-MEDICAL

Skills Test

Examinee: _____		Date: _____	
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>
Equipment:			
<ul style="list-style-type: none"> BSI Equipment 			
Assessment/Treatment indicators:			
<u>Indications</u> <ul style="list-style-type: none"> Patient with a medical complaint 		<u>Contraindications</u> <ul style="list-style-type: none"> No contraindications 	
Procedure:		Yes	No
SCENE SIZE-UP			
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	Determines the scene/situation is safe	<input type="checkbox"/>	<input type="checkbox"/>
3.	Determines the nature of illness	<input type="checkbox"/>	<input type="checkbox"/>
4.	Determines the number of patients	<input type="checkbox"/>	<input type="checkbox"/>
5.	Requests additional EMS assistance if necessary	<input type="checkbox"/>	<input type="checkbox"/>
6.	Considers stabilization of the spine	<input type="checkbox"/>	<input type="checkbox"/>
PRIMARY SURVEY/RESUSCITATION			
7.	Verbalizes general impression of the patient	<input type="checkbox"/>	<input type="checkbox"/>
8.	Determines responsiveness/level of consciousness (AVPU)	<input type="checkbox"/>	<input type="checkbox"/>
9.	Determines chief complaint/apparent life-threats	<input type="checkbox"/>	<input type="checkbox"/>
10.	Assesses airway and breathing <ul style="list-style-type: none"> Assures adequate ventilation Initiates appropriate oxygen therapy 	<input type="checkbox"/>	<input type="checkbox"/>
11.	Assesses circulation <ul style="list-style-type: none"> Assesses for and controls major bleeding Checks pulse Assesses skin (color, temperature or condition) 	<input type="checkbox"/>	<input type="checkbox"/>
12.	Identifies patient priority and makes treatment/transport decision	<input type="checkbox"/>	<input type="checkbox"/>
HISTORY TAKING			
13.	Obtains history of the present illness <ul style="list-style-type: none"> Onset Provocation Quality Radiation Severity Time Clarifying questions of associated signs and symptoms related to O-P-Q-R-S-T 	<input type="checkbox"/>	<input type="checkbox"/>

Patient Assessment/Management-TRAUMA

INDICATIONS

Patient with blunt or penetrating trauma

CONTRAINDICATIONS (Relative)

- No contraindications

CONSIDERATIONS

Considers stabilization of the spine

Patient Assessment/Management-TRAUMA

Skills Test

Examinee: _____ Date: _____

Examiner: _____ Pass ☐ Pass/Counsel ☐ Fail ☐

Equipment:

- BSI Equipment

Assessment/Treatment indicators:

Indications

- Patient with possible or confirmed blunt or penetrating trauma

Contraindications

- No contraindications

Procedure:

Yes

No

SCENE SIZE-UP

1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	Determines the scene/situation is safe	<input type="checkbox"/>	<input type="checkbox"/>
3.	Determines the mechanism of injury	<input type="checkbox"/>	<input type="checkbox"/>
4.	Determines the number of patients	<input type="checkbox"/>	<input type="checkbox"/>
5.	Requests additional EMS assistance if necessary	<input type="checkbox"/>	<input type="checkbox"/>
6.	Considers axial spinal stabilization, delegates as needed	<input type="checkbox"/>	<input type="checkbox"/>

PRIMARY SURVEY/RESUSCITATION

7.	Verbalizes general impression of the patient	<input type="checkbox"/>	<input type="checkbox"/>
8.	Determines responsiveness/level of consciousness	<input type="checkbox"/>	<input type="checkbox"/>
9.	Determines chief complaint/apparent life-threats	<input type="checkbox"/>	<input type="checkbox"/>
10.	Airway <ul style="list-style-type: none"> • Opens and assesses • Inserts adjunct as indicated 	<input type="checkbox"/>	<input type="checkbox"/>
11.	Breathing <ul style="list-style-type: none"> • Assesses breathing • Assures adequate ventilation • Initiates appropriate oxygen therapy • Manages any injury which may compromise breathing/ventilation 	<input type="checkbox"/>	<input type="checkbox"/>
12.	Circulation <ul style="list-style-type: none"> • Checks pulse • Assesses skin (color, temperature or condition) • Assesses for and controls major bleeding if present • Initiates shock management (positions patient properly, conserves body heat) 	<input type="checkbox"/>	<input type="checkbox"/>

13.	Calculates GCS	<input type="checkbox"/>	<input type="checkbox"/>
14.	Identifies patient priority and makes treatment/transport decision (based upon calculated GCS)	<input type="checkbox"/>	<input type="checkbox"/>
HISTORY TAKING			
15.	Attempts to obtain SAMPLE history	<input type="checkbox"/>	<input type="checkbox"/>
SECONDARY ASSESSMENT			
16.	Head <ul style="list-style-type: none"> • Inspects and palpates scalp and ears, mastoid areas • Assesses eyes, pupils • Inspects mouth, nose and facial area 	<input type="checkbox"/>	<input type="checkbox"/>
17.	Neck <ul style="list-style-type: none"> • Checks position of trachea • Checks jugular veins • Palpates cervical spine 	<input type="checkbox"/>	<input type="checkbox"/>
18.	Chest <ul style="list-style-type: none"> • Inspects and palpates chest • Auscultates lung sounds 	<input type="checkbox"/>	<input type="checkbox"/>
19.	Abdomen/pelvis <ul style="list-style-type: none"> • Inspects and palpates abdomen • Assesses pelvis • Verbalizes assessment of genitalia/perineum as needed 	<input type="checkbox"/>	<input type="checkbox"/>
20.	Lower extremities <ul style="list-style-type: none"> • Inspects, palpates and assesses distal motor, sensory and circulatory functions 	<input type="checkbox"/>	<input type="checkbox"/>
21.	Upper extremities <ul style="list-style-type: none"> • Inspects, palpates and assesses distal motor, sensory and circulatory functions 	<input type="checkbox"/>	<input type="checkbox"/>
22.	Posterior thorax, lumbar and buttocks <ul style="list-style-type: none"> • Inspects and palpates posterior thorax • Inspects and palpates lumbar and buttocks areas 	<input type="checkbox"/>	<input type="checkbox"/>
VITAL SIGNS			
23.	Obtains baseline vital signs (must include BP, P and R) <ul style="list-style-type: none"> • Includes temperature if patient is a potential TXA recipient 	<input type="checkbox"/>	<input type="checkbox"/>
24.	Manages secondary injuries and wounds appropriately	<input type="checkbox"/>	<input type="checkbox"/>
25.	Verbalizes how and when to reassess the patient	<input type="checkbox"/>	<input type="checkbox"/>
REASSESSMENT			
26.	Reassess/Document: <ul style="list-style-type: none"> • Patient • Lung sounds • SpO2 and CO₂ monitoring • Patient tolerance/response to intervention 	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

Penetrating Trauma

INDICATIONS

Open chest wound that requires rapid initial care

CONTRAINDICATIONS (Relative)

- Uncontrolled hemorrhage from chest wound.

CONSIDERATIONS

Penetrating Trauma

Skills Test

Examinee: _____ Date: _____				
Examiner: _____ Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>				
Equipment:				
<ul style="list-style-type: none"> PPE Occlusive dressing 		<ul style="list-style-type: none"> Tape Stethoscope 		
Assessment/Treatment indicators:				
<p style="text-align: center;"><u>Indications</u></p> <ul style="list-style-type: none"> Open chest would due to penetrating trauma 		<p style="text-align: center;"><u>Contraindications</u></p> <ul style="list-style-type: none"> Uncontrolled hemorrhage from chest wound 		
Procedure:			Yes	No
1.	Scene safety awareness/PPE usage		<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications		<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment		<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure		<input type="checkbox"/>	<input type="checkbox"/>
5.	Maintain an open airway and provide basic life support if necessary		<input type="checkbox"/>	<input type="checkbox"/>
6.	Expose chest		<input type="checkbox"/>	<input type="checkbox"/>
7.	Remove occlusive dressing from packaging		<input type="checkbox"/>	<input type="checkbox"/>
8.	Place occlusive dressing over wound creating a seal on all sides. If no dressing is available use gloved hand to create temporary seal		<input type="checkbox"/>	<input type="checkbox"/>
9.	Assess for signs of tension pneumothorax. Remove dressing if signs of tension pneumothorax develop		<input type="checkbox"/>	<input type="checkbox"/>
10.	Administer high flow oxygen if indicated		<input type="checkbox"/>	<input type="checkbox"/>
11.	Auscultate lung sounds		<input type="checkbox"/>	<input type="checkbox"/>
12.	Treat for shock		<input type="checkbox"/>	<input type="checkbox"/>
13.	Place patient in position of comfort: <ul style="list-style-type: none"> Upright-due to respiratory distress Shock position if signs of shock appear On affected side if possible, this allows the injured lung to expand without restriction 		<input type="checkbox"/>	<input type="checkbox"/>

Pulse Oximetry

INDICATIONS

Chief complaint of respiratory, cardiovascular and neurological complications

Abnormal vital signs

Trauma patients

Any patient that would benefit from monitoring

CONTRAINDICATIONS

- No contraindications

CONSIDERATIONS

Remove nail polish if necessary; alcohol prep may be used for this

Pulse Oximetry

Skills Test

Examinee: _____ Date: _____

Examiner: _____ Pass ☐ Pass/Counsel ☐ Fail ☐**Equipment:**

- PPE
- Pulse oximetry sensor
- Monitor with SpO₂ capabilities

Assessment/Treatment indicators:**Indications**

- Patient complaints of respiratory, cardiovascular and neurological complications
- Abnormal vital signs
- Trauma patients
- Any patient, medic feels would benefit from monitoring

Contraindications

- No contraindications

Procedure:**Yes****No**

1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
5.	Gathers appropriate equipment (monitor, pulse oximetry sensor)	<input type="checkbox"/>	<input type="checkbox"/>
6.	Removes nail polish as needed	<input type="checkbox"/>	<input type="checkbox"/>
7.	Applies adhesive sensor or clip sensor to finger	<input type="checkbox"/>	<input type="checkbox"/>
8.	Utilizes monitor to provide pulse oximetry reading (normal = 94% - 98%)	<input type="checkbox"/>	<input type="checkbox"/>
9.	Reassess/Document: <ul style="list-style-type: none"> • Patient • Lung sounds • Placement verification • SpO₂ and CO₂ monitoring • Patient response/tolerance to intervention 	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

SAGER Traction Splint

INDICATIONS

- Painful, swollen, deformed mid-thigh with no joint or lower leg injury

CONTRAINDICATIONS

- Open fracture
- Pelvis, hip, knee, ankle injury
- Excessive avulsion
- Partial amputation

CONSIDERATIONS

Utilize three rescuers to apply a traction splint, if possible

SAGER Traction Splint

Skills Test

Examinee: _____ Date: _____ Examiner: _____ Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>			
Equipment:			
• PPE		• HARE Traction Splint	
Assessment/Treatment indicators:			
<u>Indications</u> <ul style="list-style-type: none"> Painful, swollen, deformed mid-thigh with no joint or lower leg injury 		<u>Contraindications</u> <ul style="list-style-type: none"> Open fracture Pelvis, hip, knee, ankle injury Excessive avulsion Partial amputation 	
Procedure:		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
5.	Directs assistant to stabilize the injured leg	<input type="checkbox"/>	<input type="checkbox"/>
6.	Exposes the injured extremity	<input type="checkbox"/>	<input type="checkbox"/>
7.	Removes shoe and sock on injured leg	<input type="checkbox"/>	<input type="checkbox"/>
8.	Checks the circulation, motor and sensory function distal to the injury before moving leg or applying traction	<input type="checkbox"/>	<input type="checkbox"/>
9.	Places the device between patient's legs, resting the cushion against the groin and applies the groin strap	<input type="checkbox"/>	<input type="checkbox"/>
10.	Folds the pads on the ankle hitch as needed to fit the patient. Applies and secures under the foot	<input type="checkbox"/>	<input type="checkbox"/>
11.	Extends the device, providing approximately 10% of the patient's body weight in axial traction (Max 15 pounds for single leg or 25 pounds bilateral)	<input type="checkbox"/>	<input type="checkbox"/>
12.	Applies leg straps; one over the mid-thigh, one over the knee, and one over the lower leg	<input type="checkbox"/>	<input type="checkbox"/>
13.	Applies the foot strap or cravat around both feet to prevent rotation	<input type="checkbox"/>	<input type="checkbox"/>
14.	Directs the assistant to lower the leg onto the device while maintaining traction	<input type="checkbox"/>	<input type="checkbox"/>
15.	Secures the groin strap prior to application of mechanical traction	<input type="checkbox"/>	<input type="checkbox"/>
16.	Attaches the foot strap rings to winch and twists knob to apply mechanical traction	<input type="checkbox"/>	<input type="checkbox"/>

17.	Releases manual traction after the mechanical traction is applied	<input type="checkbox"/>	<input type="checkbox"/>
18.	Rechecks the circulation, motor and sensory function distal to the injury	<input type="checkbox"/>	<input type="checkbox"/>
19.	Splints the fracture without excessive motion of the leg	<input type="checkbox"/>	<input type="checkbox"/>
20.	Immobilizes the patient's hip joint to backboard or equivalent, if spinal precautions not already in place	<input type="checkbox"/>	<input type="checkbox"/>
21.	Secures the limb straps and mechanical traction device. Does not strap over the fracture site or knee	<input type="checkbox"/>	<input type="checkbox"/>
22.	Reassess/Document: <ul style="list-style-type: none"> • Patient • Patient response/tolerance to interventions 	<input type="checkbox"/>	<input type="checkbox"/>
Notes: 			

Zoll Auto Pulse

INDICATIONS

Adult patient in full non-traumatic cardiac arrest

CONTRAINDICATIONS

- Patients less than 18 years old
- Trauma patients
- Patient Chest Circumference=29.9 to 51.2 inches
- Maximum patient weight = 300 lbs.

CONSIDERATIONS

May be used on pregnant women, depending on position of fundus

Zoll Auto Pulse

Skills Test

Examinee: _____ Date: _____

Examiner: _____ Pass ☐ Pass/Counsel ☐ Fail ☐

Equipment:

- Auto Pulse
- Life Band
- Defibrillation pads (if needed)

Assessment/Treatment indicators:

Indications

- Unresponsive patient in full non-traumatic cardiac arrest
- May be used on pregnant women, depending on position of fundus

Contraindications

- Patients less than 18 years old
- Trauma patients
- Patient Chest Circumference = 29.9 to 51.2 inches
- Maximum patient weight = 300 lbs.

Procedure:

		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	After assessing the patient's condition, start CPR if necessary; Place defibrillation pads if needed	<input type="checkbox"/>	<input type="checkbox"/>
5.	Remove Auto Pulse from carrying case	<input type="checkbox"/>	<input type="checkbox"/>
6.	Fully extend Life Band from stored position to open position	<input type="checkbox"/>	<input type="checkbox"/>
7.	Power on the Auto Pulse device, (observe for no red lights or advisory codes)	<input type="checkbox"/>	<input type="checkbox"/>
8.	Cut and remove patient shirt	<input type="checkbox"/>	<input type="checkbox"/>
9.	Two (2) providers grab patient's arms and pull patient forward, lifting patient's back- a one-person lift may also be utilized	<input type="checkbox"/>	<input type="checkbox"/>
10.	Place round side of board to patient's butt	<input type="checkbox"/>	<input type="checkbox"/>
11.	Slide the Auto Pulse underneath the patient. Position the patient so they are centered laterally (from left to right) and the armpits are aligned with the AutoPulse using the yellow line positioning guides on the platform	<input type="checkbox"/>	<input type="checkbox"/>
12.	Close the Life Band around the patient's chest; Place band 1 with yellow fin center mass, matching yellow line on band with yellow line on board	<input type="checkbox"/>	<input type="checkbox"/>
13.	Place band 2 on top of band 1, lining up yellow fin into slot, using all the Velcro	<input type="checkbox"/>	<input type="checkbox"/>
14.	Lift band fully up 90 degrees, ensuring band is not twisted on either side	<input type="checkbox"/>	<input type="checkbox"/>

Continuous Positive Airway Pressure Device (CPAP)

INDICATIONS

Awake, alert patient able to follow commands in severe respiratory distress as evidenced by:

Respiratory rate ≥ 24 breaths per minute and/or

SpO₂ less than 90% and/or

Accessory muscle use

CONTRAINDICATIONS

- Apnea
- Unconscious
- Pediatric (appearing to be less than 15 years of age)
- Suspected pneumothorax
- Vomiting
- Systolic blood pressure 90 mmHg or less (relative contraindication)

CONSIDERATIONS

No considerations

Continuous Positive Airway Pressure Device (CPAP)

Skills Test

Examinee: _____		Date: _____		
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>	
Equipment:				
<ul style="list-style-type: none"> • CPAP mask • CPAP circuit or device • Cardiac monitor 		<ul style="list-style-type: none"> • Oxygen tank with spare available • Capnography monitoring device 		
Assessment/Treatment indicators:				
<p style="text-align: center;"><u>Indications</u></p> <p>Awake, alert patient able to follow commands in severe respiratory distress as evidenced by:</p> <ul style="list-style-type: none"> • Respiratory rate \geq 24 breaths per minute and/or • SpO₂ less than 90% and/or • Accessory muscle use 		<p style="text-align: center;"><u>Contraindications</u></p> <ul style="list-style-type: none"> • Apnea • Unconscious • Pediatric (appearing younger than 15 years old) • Suspected pneumothorax • Vomiting • Systolic blood pressure 90 mmHg or less (relative contraindication) 		
Procedure:			Yes	No
1.	Scene safety awareness/PPE usage		<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications		<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment Checks the "five patient rights, plus one" <ul style="list-style-type: none"> • Right patient • Right medication • Right dose • Right route • Right time • Allergies <div style="display: flex; margin-left: 20px;"> <div style="margin-right: 10px;">D-Dose/Drug</div> <div>I- Integrity of packaging</div> <div>C-Clarity of solution</div> <div>E-Expiration Date</div> </div>		<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure		<input type="checkbox"/>	<input type="checkbox"/>
5.	Provides supplemental oxygen as clinically indicated		<input type="checkbox"/>	<input type="checkbox"/>
6.	Positions patient sitting upright		<input type="checkbox"/>	<input type="checkbox"/>
7.	Assembles CPAP mask, circuit and device		<input type="checkbox"/>	<input type="checkbox"/>
8.	Applies mask and begins CPAP at 0-2cm H ₂ O (or lowest level allowed by the device); instruct patient to inhale through nose and exhale through mouth		<input type="checkbox"/>	<input type="checkbox"/>
9.	Slowly titrates in 3cm increments up to maximum of 15cm H ₂ O according to patients tolerance while instructing patient to continue exhaling against increasing pressure		<input type="checkbox"/>	<input type="checkbox"/>
10.	Attaches ET CO ₂ monitoring device		<input type="checkbox"/>	<input type="checkbox"/>

End Tidal Capnography Monitoring Device

INDICATIONS

***** MANDATORY: to rule out esophageal intubation and confirm and monitor endotracheal tube position in all intubated patients, monitor perfusion with any pain medication administrations and post sedation on excited delirium patients.***

To identify endotracheal tube dislodgement

To assist in monitoring ventilation and perfusion in all ill or injured patients or those who have been medicated with any narcotic

To monitor quality of chest compressions

To confirm ROSC

To monitor status of asthmatic, CHF, COPD, PE patient

CONTRAINDICATIONS

- No considerations

CONSIDERATIONS

In cases of suspected head trauma (signs of herniation), maintain ET CO₂ between 30-35mmHg (figure 1).

Aggressive hyperventilation should be avoided in all patients

End Tidal Capnography Monitoring Device

Skills Test

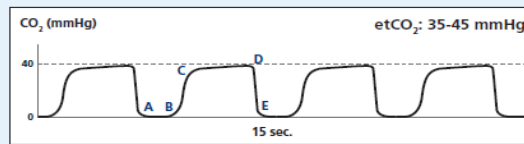
Examinee: _____		Date: _____	
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>
Equipment:			
<ul style="list-style-type: none"> PPE Cardiac monitor 		<ul style="list-style-type: none"> Oxygen device ET CO₂ cable with sensor 	
Assessment/Treatment indicators:			
<p style="text-align: center;"><u>Indications</u></p> <ul style="list-style-type: none"> <i>MANDATORY: to rule out esophageal intubation and confirm and monitor endotracheal tube position in all intubated patients, monitor perfusion with any pain medication administrations and post sedation on excited delirium patients.</i> To monitor quality of chest compressions To confirm ROSC To identify endotracheal tube dislodgement. To assist in monitoring respiration, metabolism and perfusion in all ill or injured patients or those who have been medicated with any narcotic To monitor the status of an asthmatic, CHF, COPD, PE patient 		<p style="text-align: center;"><u>Contraindications</u></p> <ul style="list-style-type: none"> No contraindications 	
Procedure:		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
5.	Attaches the capnography sensor to the endotracheal tube or oxygen delivery device without increasing dead space	<input type="checkbox"/>	<input type="checkbox"/>
6.	If not previously attached, attaches the ET CO ₂ connector to the cardiac monitor	<input type="checkbox"/>	<input type="checkbox"/>
7.	Ideally, maintains ET CO ₂ output between 35-45 mmHg	<input type="checkbox"/>	<input type="checkbox"/>
8.	If suctioning is required, takes caution to not dislodge "T" sensor	<input type="checkbox"/>	<input type="checkbox"/>
9.	Reassess/Document: <ul style="list-style-type: none"> Patient Respiratory status Intubation or oxygen delivery ET CO₂ reading, waveform and respiratory rate Patient response/toleration to intervention 	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

Normal Capnogram

The normal capnogram is a waveform which represents the varying CO_2 level throughout the breath cycle.

Waveform Characteristics:

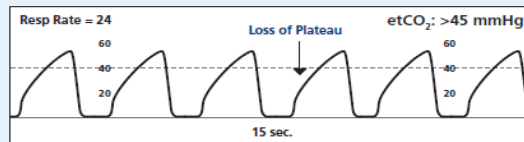
- A-B: Baseline D: End-Tidal Concentration
B-C: Expiratory Upstroke D-E: Inspiration
C-D: Expiratory Plateau



Bronchospasm/Asthma

Other Possible Causes:

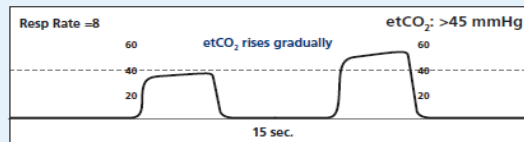
- Bronchospasm/COPD
- Obstruction in the expiratory limb of the breathing circuit
- Presence of a foreign body in the upper airway
- Partially kinked or occluded artificial airway



*Increasing etCO₂ (Hypoventilation)

Other Possible Causes:

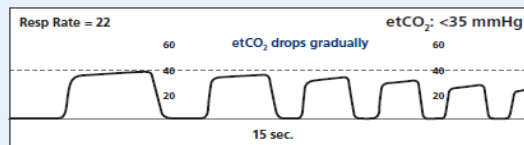
- Decrease in respiratory rate
- Decrease in tidal volume
- Increase in metabolic rate
- Rapid rise in body temperature (malignant hyperthermia)



*Decreasing etCO₂ (Hyperventilation)

Other Possible Causes:

- Increase in respiratory rate
- Increase in tidal volume
- Metabolic acidosis
- Fall in body temperature

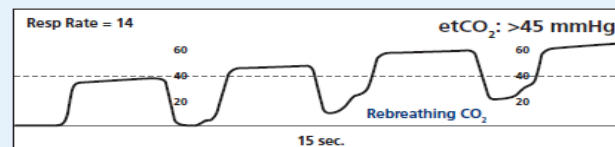


*Assumes adequate circulation and alveolar gas exchange

Rebreathing CO₂

Other Possible Causes:

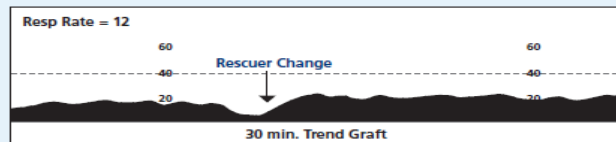
- Faulty expiratory valve
- Inadequate inspiratory flow
- Partial rebreathing
- Insufficient expiratory time



Cardiac Arrest

Other Possible Causes:

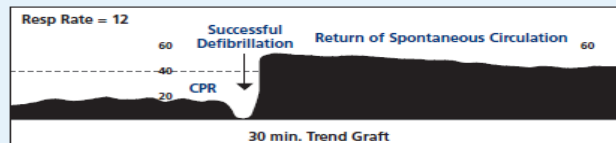
- Decreased or absent cardiac output
- Decreased or absent pulmonary blood flow
- Sudden decrease in CO_2 values



Return of Spontaneous Circulation

Other Possible Causes:

- Increase in cardiac output
- Increase in pulmonary blood flow
- Gradual increase in CO_2 production



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NORMAL RANGES:

CAPNOG: 35-45mmHg

pH: 7.35 – 7.45

PCO₂: 35-45mmHg

• **CO₂ is an ACID**

HCO₃: 22-28mmol/L

• **Bicarb regulates pH**

5mL is the maximum

airflow to be used with the capnography cannula or the sampling will be diluted and incorrect (wash out)

Capnography cannulas **CAN BE USED** with CPAP masks.

The masks are designed to properly seal with a nasal capnography adjunct in place

An elevated RR may be due to the buildup of CO_2 ; the body compensates by blowing off this acid

Figure 1

With capnography, one can monitor Respiration, Metabolism and Perfusion

It is imperative to have capnography in place to measure the FIRST (assisted or unassisted) breath to establish a baseline for each patient.

External Jugular Vein Access

INDICATIONS

Patient condition requires IV access and other peripheral IV access attempts are unsuccessful.

CONTRAINDICATIONS

- Patient eight (8) years of age or younger

CONSIDERATIONS

No considerations

External Jugular Vein Access

Skills Test

Examinee: _____		Date: _____	
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>
Equipment:			
<ul style="list-style-type: none"> • Appropriately sized IV catheter • Alcohol swabs 		<ul style="list-style-type: none"> • Occlusive dressing • IV tubing/fluids (if indicated) 	
Assessment/Treatment indicators:			
<u>Indications</u>		<u>Contraindications</u>	
<ul style="list-style-type: none"> • Patient condition required IV access and other peripheral IV access attempts are unsuccessful 		<ul style="list-style-type: none"> • Patient eight (8) years of age or less 	
Procedure:		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Checks the "five patient rights, plus one" <ul style="list-style-type: none"> • Right patient • Right medication • Right dose • Right route • Right time • Allergies <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div> D-Dose/Drug I- Integrity of packaging C-Clarity of solution E-Expiration Date </div> </div>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
6.	Utilizes axial spinal stabilization in trauma patients. (f not in axial spinal stabilization, extend and stabilize patient's neck); maintain manual axial spinal stabilization if the need to remove c-collar arises	<input type="checkbox"/>	<input type="checkbox"/>
7.	Places patient in Trendelenburg position or apply slight pressure at base of vein for tourniquet effect	<input type="checkbox"/>	<input type="checkbox"/>
8.	Obtains external jugular vein access with appropriately sized IV catheter	<input type="checkbox"/>	<input type="checkbox"/>
9.	Securely tapes catheter with occlusive dressing in place and continue to monitor for patency	<input type="checkbox"/>	<input type="checkbox"/>
10.	Rechecks site frequently for signs of infiltration	<input type="checkbox"/>	<input type="checkbox"/>
11.	Reassess/Document: <ul style="list-style-type: none"> • Patient EJ IV placement and s/s of infiltration • Patient tolerance/response to intervention 	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

Intraosseous Insertion/Infusion (IO)

INDICATIONS

Primary vascular access in cardiac patients eight (8) years of age and younger
Any patient where venous access is unavailable by any other mean

CONTRAINDICATIONS

- Fracture of target bone
- Previous IO attempt and marrow entry at target site
- Infection at target site
- Severe burn to the extremity
- Crush injuries
- Known bone disease

CONSIDERATIONS

Anterior distal femur, 2cm above the patella; base station order (Figure 1)
Lidocaine for pain control
Pressure infusion device

Intraosseous Infusion

Skills Test

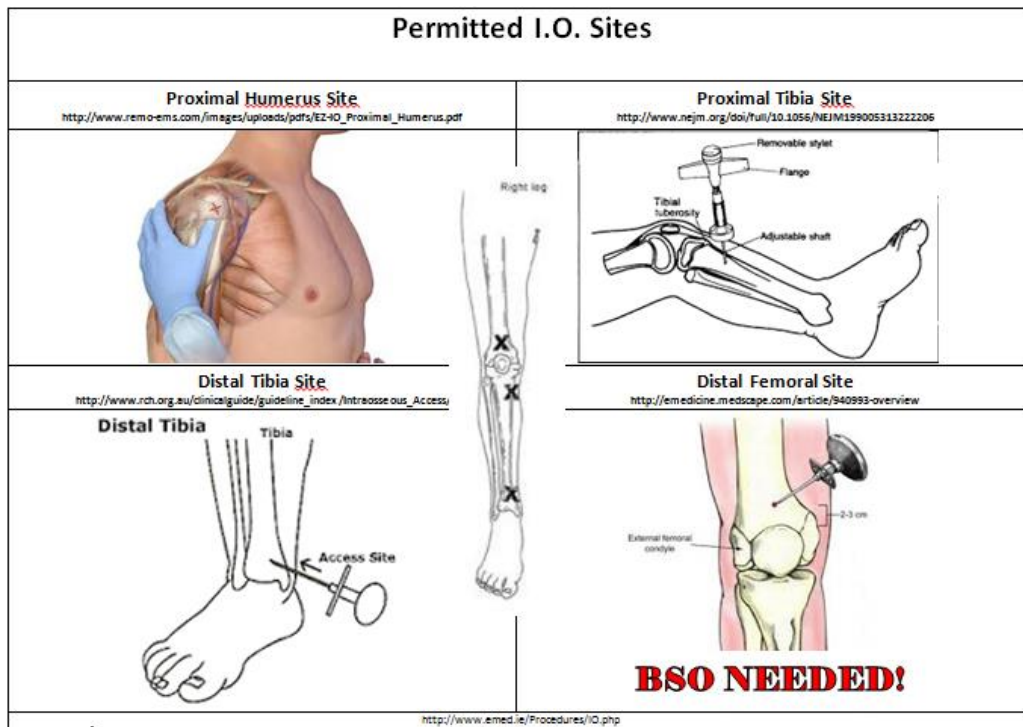
Examinee: _____		Date: _____	
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>
Equipment:			
<ul style="list-style-type: none"> PPE IV Solution IV administration set 3-way stopcock IO needle/driver (25mm, 45mm) Povidone – iodine OR Chlorhexidine skin cleaner 		<ul style="list-style-type: none"> Extension tubing Sharps container Tape Splint Pressure infuser or BP cuff Syringe Sterile gauze pads 	
Assessment/Treatment indicators:			
<u>Indications</u>		<u>Contraindications</u>	
<ul style="list-style-type: none"> Primary vascular access in cardiac patients eight (8) years of age and younger Any patient where venous access is unavailable by any other means 		<ul style="list-style-type: none"> Fracture to the target bone Previous IO attempt and marrow entry at target site Severe burn to the extremity Crush injuries Known bone disease Infection at target site 	
Procedure:		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Checks the “five patient rights, plus one” <ul style="list-style-type: none"> Right patient Right medication D-Dose/Drug Right dose I- Integrity of packaging Right route C-Clarity of solution Right time E-Expiration Date Allergies 	<input type="checkbox"/>	<input type="checkbox"/>
5.	Selects appropriate solution/administration set <ul style="list-style-type: none"> Prepares IO and attaches 3-way stopcock (as needed), extension tubing, and syringe 	<input type="checkbox"/>	<input type="checkbox"/>
6.	Selects the appropriate sized needle for insertion <ul style="list-style-type: none"> Attaches needle to driver 	<input type="checkbox"/>	<input type="checkbox"/>
7.	Select the appropriate site of insertion and cleans with selected skin cleanser <p>a) Anterior medial aspect of the proximal tibia – approximately 1-3cm below the tibial tuberosity (preferred site for pediatrics eight (8) years of age and younger)</p>	<input type="checkbox"/>	<input type="checkbox"/>

	b) Anterior medial malleolus (distal tibia) – approximately 1-3cm above the medial malleolus (one of the preferred site for adults nine (9) years of age and older) c) Proximal humeral head – approximately 1-3cm from the humeral tuberosity when the hand is rotated inward toward the body (adults nine (9) years of age and older only) d) Distal Femur – approximately 1-3cm above the distal head ** Base Station Order (BSO) only		
8.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
9a.	Insertion (EZ-IO): a. Anterior Tibia (example) <ul style="list-style-type: none"> Swabs dominant hand with Povidone-iodine and relocate the landmark, with other hand stabilizing the leg Positions the IO needle and driver perpendicular to the patient's leg (90-degree angle) Inserts the needle through the skin to the bone until the needle rests against the bone Visualizes the 5mm mark above the skin Depresses the trigger on driver to insert IO needle until there is a sudden decrease of resistance (or "pop") Removes the driver and the stylet; ensures proper disposal Attaches primed IV extension tubing to hub of needle 	<input type="checkbox"/>	<input type="checkbox"/>
9b.	Insertion (manual): a. Anterior Tibia (example) <ul style="list-style-type: none"> Swabs dominant hand with Povidone-iodine and relocate the landmark while stabilizing the leg Positions the IO needle perpendicular to the patient's leg (90-degree angle) Applies downward pressure in a twisting motion perpendicular to the surface of the target site Upon entrance into medullary cavity, slightly advances needle 1-2cm 	<input type="checkbox"/>	<input type="checkbox"/>
10.	Confirms IO placement <ul style="list-style-type: none"> Loss of resistance on insertion Needle free standing IO flushes freely Aspiration of blood/marrow No extravasation 	<input type="checkbox"/>	<input type="checkbox"/>
11.	Secures IO <ul style="list-style-type: none"> Leaves site uncovered, hinges tubing to extremity with tape 	<input type="checkbox"/>	<input type="checkbox"/>
12.	Pain control for conscious patients <ul style="list-style-type: none"> Utilize 2% Lidocaine <ul style="list-style-type: none"> Primes extension tubing with 0.5 mg/kg of 2% Lidocaine and infuse slowly (over 2 minutes), not to exceed 40mg 	<input type="checkbox"/>	<input type="checkbox"/>
13.	Determines how IV fluid/medication may be administered: <ul style="list-style-type: none"> Using a syringe, pressure device or B/P cuff 	<input type="checkbox"/>	<input type="checkbox"/>
14.	Reassess/Document: <ul style="list-style-type: none"> Patient 	<input type="checkbox"/>	<input type="checkbox"/>

- Placement/size/site for signs of extravasation
- Medication: dose, time, route/location,
- Patient response/tolerance to intervention

Notes:

Figure 1



Nasogastric/Orogastric Tube Insertion

INDICATIONS

Any intubated patient where gastric distention may impede ABC's

ALL intubated pediatric patients

Oral route for patients with mid-facial trauma and all patients less than six (6) months of age

Conscious with continuous vomiting and inability to maintain airway

CONTRAINDICATIONS (Relative)

- History of esophageal strictures, varices and/or other esophageal disease
- Caustic ingestion
- Significant facial or head trauma
- History of bleeding disorders

CONSIDERATIONS

No considerations

Nasogastric/Orogastric Tube Insertion

Skills Test

Examinee: _____		Date: _____		
Examiner: _____		Pass <input type="checkbox"/>	Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>	
Equipment:				
<ul style="list-style-type: none"> PPE Naso/Orogastric tube (appropriately sized) <ul style="list-style-type: none"> Adult 16-18fr Pediatric 8-10fr Infant 5-6fr 		<ul style="list-style-type: none"> Water soluble lubricant or viscous Lidocaine gel 30-60 ml syringe Suction Setup Emesis Basin Tape 		
Assessment/Treatment indicators:				
Indications <ul style="list-style-type: none"> Any intubated patient where gastric distention may impede ABC's Oral route for patients with mid-facial trauma and all patients less than six (6) months of age Conscious with continuous vomiting and unable to support airway 		Relative Contraindications <ul style="list-style-type: none"> History of esophageal strictures, varices and/or other esophageal disease Caustic ingestion Significant facial or head trauma History of bleeding disorders 		
Procedure:			Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>	
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>	
4.	Checks the "five patient rights, plus one" <ul style="list-style-type: none"> Right patient Right medication D-Dose/Drug Right dose I- Integrity of packaging Right route C-Clarity of solution Right time E-Expiration Date Allergies 	<input type="checkbox"/>	<input type="checkbox"/>	
5.	Selects appropriate size OG/NG tube	<input type="checkbox"/>	<input type="checkbox"/>	
6.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>	
7.	Insertion	<input type="checkbox"/>	<input type="checkbox"/>	
7a.	Position patient in high Fowlers unless otherwise contraindicated or unconscious	<input type="checkbox"/>	<input type="checkbox"/>	
7b.	Measure and mark the gastric tube for proper insertion length; have suction equipment and emesis basin readily available <ul style="list-style-type: none"> Nasogastric – combined distance between the tip of the nose to the ear lobe to the xiphoid process 	<input type="checkbox"/>	<input type="checkbox"/>	

	<ul style="list-style-type: none"> • Orogastric – combined distance between the corner of the mouth to the ear lobe to the xiphoid process 		
7c.	Examine both nares to determine nare with best airflow or examine oropharyngeal cavity for obstructions or secretions	<input type="checkbox"/>	<input type="checkbox"/>
7d.	Lubricate distal third of the gastric tube with a water-soluble lubricant or viscous Lidocaine gel	<input type="checkbox"/>	<input type="checkbox"/>
7e.	Gently pass the tube posteriorly along the floor of nasal or oral cavity	<input type="checkbox"/>	<input type="checkbox"/>
7f.	Instruct patient to swallow (if conscious)	<input type="checkbox"/>	<input type="checkbox"/>
7g.	If resistance is met while using nasal route, remove and attempt the other nostril	<input type="checkbox"/>	<input type="checkbox"/>
7h.	Slowly rotate and advance tube during insertion until pre-designated mark is at tip of nose or corner of mouth	<input type="checkbox"/>	<input type="checkbox"/>
8.	Confirm proper tube placement <ul style="list-style-type: none"> • Aspiration of stomach contents • Injection of 30-60ml of air into tube and auscultate for the sound of air over the epigastric region 	<input type="checkbox"/>	<input type="checkbox"/>
9.	Secure tube to bridge of nose or to side of mouth	<input type="checkbox"/>	<input type="checkbox"/>
10.	Attach gastric tube to suction tubing and adjust to low suction or other type of approved suction device	<input type="checkbox"/>	<input type="checkbox"/>
11.	Reassess/Document: <ul style="list-style-type: none"> • Patient • Placement/size, attempts • Medication administered • Dose 	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			

Needle Cricothyrotomy

INDICATIONS

Upper airway obstruction with severe respiratory distress

When unable to ventilate utilizing conventional airway maneuvers or devices

CONTRAINDICATIONS

Transection of distal trachea:

- **Symptoms:** respiratory distress, hoarseness, dysphonia (inability to produce voice sounds), cough, noisy breathing and stridor, dysphagia (inability to swallow)
- **Physical signs:** abnormal laryngeal contour, subcutaneous emphysema, cervical ecchymosis, hemoptysis (the coughing of blood from the respiratory tract below the level of the larynx)

Patient less than two (2) years of age

CONSIDERATIONS

Inline cervical stabilization as needed

Needle Cricothyrotomy

Skills Test

Examinee: _____

Date: _____

Examiner: _____

Pass ☐Pass/Counsel ☐Fail ☐

Equipment:

- | | |
|---|--|
| <ul style="list-style-type: none"> PPE NRB mask with 100% oxygen Adult 10-15gauge needle Pediatric 12-15gauge needle Cannula adaptor | <ul style="list-style-type: none"> Syringe BVM or Translaryngeal Jet Ventilation (TLJV) device Optional: 3-way stopcock or y-connector End-tidal CO₂ and Pulse Oximetry |
|---|--|

Assessment/Treatment indicators:

Indications

- Upper airway obstruction with severe respiratory distress
- When unable to ventilate utilizing conventional airway maneuvers or devices

Contraindications

- Transection of distal trachea
- Patient less than two (2) years of age

Procedure:

		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
5.	Supports ventilations, use inline cervical stabilization as needed	<input type="checkbox"/>	<input type="checkbox"/>
6.	Pre-oxygenates and place patient in supine position prior to attempting procedure	<input type="checkbox"/>	<input type="checkbox"/>
7.	Locates the soft cricothyroid membrane between the thyroid and cricoid cartilage	<input type="checkbox"/>	<input type="checkbox"/>
8.	Holds the trachea in place and provide skin tension with the thumb and middle finger of the non-dominant hand placed on either side of the trachea	<input type="checkbox"/>	<input type="checkbox"/>
9.	Uses the index finger to palpate the cricothyroid membrane	<input type="checkbox"/>	<input type="checkbox"/>
10.	Places the needle in the midline of the neck at the inferior margin of the cricothyroid membrane (to avoid the cricothyroid blood vessels located superiorly and laterally) <ul style="list-style-type: none"> Directing it caudally (toward the feet) at an angle of 30 to 45 degrees 	<input type="checkbox"/>	<input type="checkbox"/>
11.	Punctures the skin and subcutaneous tissue. Advance the needle while continuously applying negative pressure on the syringe, until air bubbles are seen, confirming intratracheal placement	<input type="checkbox"/>	<input type="checkbox"/>
12.	Advances the catheter forward off the needle until its hub rests at the skin surface	<input type="checkbox"/>	<input type="checkbox"/>
13.	Removes the needle, attach a syringe and aspirate for air to confirm that the catheter remains in the trachea	<input type="checkbox"/>	<input type="checkbox"/>

Needle Thoracostomy

INDICATIONS

Progressively worsening dyspnea/cyanosis
Decreased or diminished breath sounds on the affected side
Hypotension
Increased agitation
Distended neck veins
Tracheal deviations away from the affected side

CONTRAINDICATIONS

- No contraindications

CONSIDERATIONS

Determine position for conscious and unconscious patient
If conscious, place the patient in an upright position if able to tolerate
If patient is unconscious or in axial-spinal immobilization, leave supine
Determine best site:

- 2nd Intercostal space at the mid-clavicular line or the alternative site, at the 4th intercostal space, mid-axillary
- Caution should be exercised in the later stages of pregnancy; a higher (3rd) intercostal space should be used to avoid injury to the liver or spleen

Needle Thoracostomy

Skills Test

Examinee: _____ Date: _____

Examiner: _____ Pass ☐ Pass/Counsel ☐ Fail ☐

Equipment:

- | | |
|--|--|
| <ul style="list-style-type: none"> PPE Needle Thoracostomy Kit; or 14 or 16 gauge 3.25 inch needle (pts >50 kg); or 18-gauge needle 1.5-inch needle (pts <50 kg) | <ul style="list-style-type: none"> Antiseptic wipes Flutter valve End tidal CO₂ monitoring device BVM Tape |
|--|--|

Assessment/Treatment indicators:

Indications

- Progressively worsening dyspnea/cyanosis
- Decreased or diminished breath sounds on the affected side
- Hypotension
- Increased agitation
- Distended neck veins
- Tracheal deviations away from the affected side

Contraindications

- No contraindications

Procedure:

		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
5.	Preps chosen site with antiseptic wipes	<input type="checkbox"/>	<input type="checkbox"/>
6.	Inserts needle perpendicular to the chest wall at the level of the superior boarder of the third rib until pleura is penetrated as indicated by one or more of the following: <ul style="list-style-type: none"> A rush of air Ability to aspirate free air into the syringe 	<input type="checkbox"/>	<input type="checkbox"/>
7.	Removes the syringe and needle stylet and leave cannula in place	<input type="checkbox"/>	<input type="checkbox"/>
8.	Adds flutter valve	<input type="checkbox"/>	<input type="checkbox"/>
9.	Secures needle hub in place with tape or other device	<input type="checkbox"/>	<input type="checkbox"/>
10.	Reassess/Document: <ul style="list-style-type: none"> Patient Placement/location Lung sounds, respiratory status, SpO₂ and CO₂ monitoring 	<input type="checkbox"/>	<input type="checkbox"/>

	<ul style="list-style-type: none">• Patient response/tolerance to intervention		
Notes:			

Oral Endotracheal Intubation

INDICATIONS

Unresponsive and apneic patient

Agonal or failing respirations and/or no gag reflex present

Adequate ventilation cannot otherwise be achieved

CONTRAINDICATIONS

- Suspected ALOC (initially)

CONSIDERATIONS

Utilize cervical stabilization as needed

Select appropriately sized endotracheal intubation tube

Consider prophylactic Lidocaine 1.5 mg/kg IVP for suspected head/brain injury

Oral Endotracheal Intubation

Skills Test

Examinee: _____		Date: _____	
Examiner: _____		Pass <input type="checkbox"/> Pass/Counsel <input type="checkbox"/> Fail <input type="checkbox"/>	
Equipment:			
<ul style="list-style-type: none"> PPE Endotracheal Intubation Tube (<i>appropriately sized for age group</i>) Stylet Laryngoscope 		<ul style="list-style-type: none"> End tidal CO₂ monitoring device BVM Tape Lidocaine IV (if indicated) 	
Assessment/Treatment indicators:			
<p style="text-align: center;"><u>Indications</u></p> <ul style="list-style-type: none"> Unresponsive and apneic patient Patient with agonal or failing respirations, and/or no gag reflex Prolonger ventilation is required and adequate ventilation cannot otherwise be achieved 		<p style="text-align: center;"><u>Contraindications</u></p> <ul style="list-style-type: none"> Suspected ALOC (initially) 	
Procedure:		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Checks the “five patient rights, plus one” <ul style="list-style-type: none"> Right patient Right medication D-Dose/Drug Right dose I- Integrity of packaging Right route C-Clarity of solution Right time E-Expiration Date Allergies 	<input type="checkbox"/>	<input type="checkbox"/>
5.	Selects appropriate sized ET tube	<input type="checkbox"/>	<input type="checkbox"/>
6.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
7.	Insertion	<input type="checkbox"/>	<input type="checkbox"/>
7a.	Supports ventilations with appropriate basic airway adjuncts	<input type="checkbox"/>	<input type="checkbox"/>
7b.	Immediately prior to intubation, consider prophylactic Lidocaine 1.5 mg/kg IVP for suspected head/brain injury	<input type="checkbox"/>	<input type="checkbox"/>
7c.	Visualizes the vocal cords with the laryngoscope. Watch as the tube passes through the vocal cords. Advance the tube until the vocal cord marker is situated beyond the vocal cords. Placement efforts must stop after twenty (20) seconds for ventilation	<input type="checkbox"/>	<input type="checkbox"/>

Subcutaneous Medication Administration

INDICATIONS

- Desired route for administration of medication

CONTRAINDICATIONS (Relative)

If any of the following are noted at the site select a different site:

- Evisceration
- Masses
- Tenderness
- Bruising
- Infection
- Abrasions
- Swelling

Subcutaneous Medication Administration

Skills Test

Examinee: _____ Date: _____

Examiner: _____ Pass ☐ Pass/Counsel ☐ Fail ☐

Equipment:

- | | |
|--|--|
| <ul style="list-style-type: none"> BSI equipment Syringe Alcohol Prep | <ul style="list-style-type: none"> Safety Needles (25g 1/2 - 7/8 inch) Bandage |
|--|--|

Assessment/Treatment indicators:

Indications

- Desired route for administration of medication

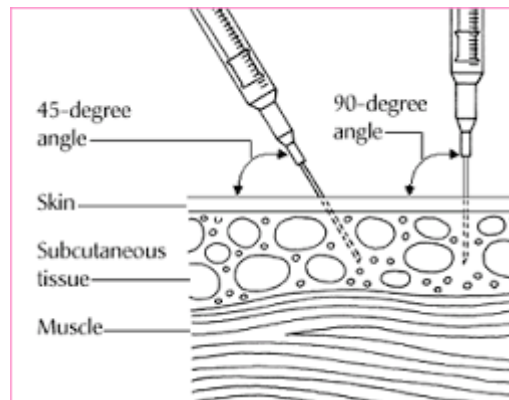
Contraindications (relative to site)

- Evisceration
- Masses
- Tenderness
- Bruising
- Infection
- Abrasions
- Swelling

Procedure:

		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindication	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares and checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Explains procedure to patient/family	<input type="checkbox"/>	<input type="checkbox"/>
5.	Chooses and inspects desired site for contraindications Back of the upper arm (humeral region) Upper outer aspect of thigh	<input type="checkbox"/>	<input type="checkbox"/>
6.	Chooses appropriate medication	<input type="checkbox"/>	<input type="checkbox"/>
7.	Withdraws medication	<input type="checkbox"/>	<input type="checkbox"/>
8.	Positions patient and prepares site	<input type="checkbox"/>	<input type="checkbox"/>
9.	Remove air from syringe (Push slightly on the plunger to bring a drop of solution to the level of the bevel of the needle)	<input type="checkbox"/>	<input type="checkbox"/>
10.	Support the muscle to be injected (Without contaminating the site pinch skin with non-dominant hand)	<input type="checkbox"/>	<input type="checkbox"/>
11.	Inserts needle into the site at 45° angle, stabilizes hub of syringe and aspirates for no blood return (no blood return indicates proper placement)	<input type="checkbox"/>	<input type="checkbox"/>
12.	Slowly injects medication to reduce pain and tissue trauma	<input type="checkbox"/>	<input type="checkbox"/>
13.	Withdraws needle and properly disposes needle and syringe	<input type="checkbox"/>	<input type="checkbox"/>

14.	Applies direct pressure, massages site and applies bandage as needed	<input type="checkbox"/>	<input type="checkbox"/>
15.	Reassess/Document: <ul style="list-style-type: none"> • Patient • Medication and dosage given • Administration success • Patient response/tolerance to intervention 	<input type="checkbox"/>	<input type="checkbox"/>
Notes:			



<http://www.ada-diabetes-management.com/administer-subcutaneous-injection/>

Synchronized Cardioversion

INDICATIONS

Unstable ventricular tachycardia or wide complex tachycardias (sustained)
Unstable narrow complex tachycardias

CONTRAINDICATIONS

- Patient eight (8) years of age and younger

CONSIDERATIONS

In typical pad placement, assess for:

- Transdermal medication patches (remove if found, wipe area clean)
- Implanted medical devices (avoid placing pads over devices or jewelry)

If patient's condition permits administer sedative medication for conscious patients with signs of adequate tissue perfusion:

- **MIDAZOLAM** 2 mg slow IV/IO push or via intranasal route
- **FENTANYL** 50 mcg slow IV/IO over one (1) minute (initial dose)
In five (5) minutes subsequent doses may be repeated titrating to pain; not to exceed 200mcg total via IV/IO routes

OR

- **FENTANYL** 100 mcg total, via intranasal (IN) or intramuscular (IM) route.
If patient is medicated intranasally, 50 mcg may be repeated every ten (10) minutes; titrate to pain, do not exceed 200 mcg total regardless of route given.

Synchronized Cardioversion

Skills Test

Examinee: _____ Date: _____

Examiner: _____ Pass ☐ Pass/Counsel ☐ Fail ☐

Equipment:

- Pacing/Defibrillator pads
- PPE
- Cardiac monitor
- Midazolam (if indicated)
- Fentanyl (if indicated)

Assessment/Treatment indicators:

Indications

- Unstable ventricular tachycardia or wide complex tachycardias (sustained)
- Unstable narrow complex tachycardias

Contraindications

- Patient less than eight (8) years of age

Procedure:

		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Checks the "five patient rights, plus one" <ul style="list-style-type: none"> • Right patient • Right medication D-Dose/Drug • Right dose I- Integrity of packaging • Right route C-Clarity of solution • Right time E-Expiration Date • Allergies 	<input type="checkbox"/>	<input type="checkbox"/>
5.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
6.	Applies defibrillation pads	<input type="checkbox"/>	<input type="checkbox"/>
7.	Selects initial energy level setting at 100 joules or a clinically equivalent biphasic energy level per manufacture guidelines (procedure may be repeated at 200, 300 and 360 joules or a clinically equivalent biphasic energy level per manufacturer guidelines)	<input type="checkbox"/>	<input type="checkbox"/>
8.	Sets monitor/defibrillator to synchronized cardioversion mode	<input type="checkbox"/>	<input type="checkbox"/>
9.	Makes certain all personnel are clear of patient	<input type="checkbox"/>	<input type="checkbox"/>
10.	Presses and holds the shock button to cardiovert (stays clear of the patient until you are certain the energy has been delivered)	<input type="checkbox"/>	<input type="checkbox"/>
11.	Assesses patient response and perform immediate defibrillation if the patient's rhythm has deteriorated into pulseless ventricular tachycardia or ventricular fibrillation	<input type="checkbox"/>	<input type="checkbox"/>

Transcutaneous Cardiac Pacing

INDICATIONS

Symptomatic Bradycardia

CONTRAINDICATIONS

- Patient less than eight (8) years of age
- Asystole

CONSIDERATIONS

Consider sedative medication for conscious patients with signs of adequate tissue perfusion:

- **MIDAZOLAM** 2mg slow IV/IO push or via intranasal route
- **FENTANYL** 50mcg slow IV/IO over one (1) minute (initial dose)
In five (5) minutes subsequent doses may be repeated titrating to pain; not to exceed 200mcg total via IV/IO routes

OR

- **FENTANYL** 100mcg total, via intranasal (IN) or intramuscular (IM) route
If patient is medicated intranasally, 50mcg may be repeated every ten (10) minute; titrate to pain, do not exceed 200mcg total regardless of route given

Transcutaneous Cardiac Pacing

Skills Test

Examinee: _____ Date: _____

Examiner: _____ Pass ☐ Pass/Counsel ☐ Fail ☐

Equipment:

- Pacing/defibrillator pads
- PPE
- Cardiac monitor
- Midazolam (if indicated)
- Fentanyl (if indicated)

Assessment/Treatment indicators:

Indications

- Symptomatic Bradycardia

Contraindications

- Patient less than eight (8) years of age
- Asystole

Procedure:

		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Checks the "five patient rights, plus one" <ul style="list-style-type: none"> • Right patient • Right medication • Right dose • Right route • Right time • Allergies <div> D-Dose/Drug I- Integrity of packaging C-Clarity of solution E-Expiration Date </div>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Explains procedure	<input type="checkbox"/>	<input type="checkbox"/>
6.	Applies pacing pads	<input type="checkbox"/>	<input type="checkbox"/>
7.	Starts pacing at lowest setting available on monitor until capture is noted at a rate of 60	<input type="checkbox"/>	<input type="checkbox"/>
8.	Assesses peripheral pulses to confirm correlation with paced rhythm (Utilize capnography to assist in monitoring improvement of perfusion, reassesses patient for signs of adequate tissue perfusion).	<input type="checkbox"/>	<input type="checkbox"/>
9.	Determines lowest threshold by turning the output control down until capture is lost, and then turn it back up slightly until capture is noted again (maintains this capture)	<input type="checkbox"/>	<input type="checkbox"/>
10.	Re-assesses peripheral pulses and confirm correlation with paced rhythm (Utilize capnography to assist in monitoring improvement of perfusion, reassesses patient for signs of adequate perfusion).	<input type="checkbox"/>	<input type="checkbox"/>
11.	Considers Midazolam 2mg slow IV/IO or 2mg IN/IM if patient is awake and alert and exhibits signs of adequate tissue perfusion	<input type="checkbox"/>	<input type="checkbox"/>

Vagal Maneuvers (Valsalva)

INDICATIONS

Stable narrow complex tachycardias

RELATIVE CONTRAINDICATIONS

- Hypertension
- Suspected acute MI
- Suspected head/brain injury

CONSIDERATIONS

No considerations

Vagal Maneuvers (Valsalva)

Skills Test

Examinee: _____

Date: _____

Examiner: _____

Pass ☐ Pass/Counsel ☐ Fail ☐**Equipment:**

- | | |
|--|--|
| <ul style="list-style-type: none"> Cardiac monitor SpO₂ monitor | <ul style="list-style-type: none"> 10ml syringe or straw Ice water or cold washcloth as needed |
|--|--|

Assessment/Treatment indicators:**Indications**

- Stable narrow complex tachycardias

Contraindications

- Hypertension
- Suspected acute MI
- Suspected head/brain injury

Procedure:

		Yes	No
1.	Scene safety awareness/PPE usage	<input type="checkbox"/>	<input type="checkbox"/>
2.	States indications/contraindications	<input type="checkbox"/>	<input type="checkbox"/>
3.	Prepares/checks equipment	<input type="checkbox"/>	<input type="checkbox"/>
4.	Checks the “five patient rights, plus one” <ul style="list-style-type: none"> Right patient Right medication D-Dose/Drug Right dose I- Integrity of packaging Right route C-Clarity of solution Right time E-Expiration Date Allergies 	<input type="checkbox"/>	<input type="checkbox"/>
5.	Have patient perform one of the following techniques: <ol style="list-style-type: none"> Pinch nostrils together, close mouth and blow against their closed glottis Bear down as if having a bowel movement Submerge face in water or apply cold wet washcloth against face (preferred method for infants) Blow through straw or 10ml syringe 	<input type="checkbox"/>	<input type="checkbox"/>
6.	All procedures should be performed until arrhythmia is terminated or a maximum of ten (10) seconds has passed; consider sync cardioversion	<input type="checkbox"/>	<input type="checkbox"/>
7.	Reassess/Document: <ul style="list-style-type: none"> Patient Initial cardiac rate/rhythm Subsequent cardiac rate/rhythm Medication administration Patient response/tolerance to intervention 	<input type="checkbox"/>	<input type="checkbox"/>

Notes:

References

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SPECIALTY AND OPTIONAL SCOPE PROGRAM APPROVAL

I. PURPOSE

To provide guidelines for the application and renewal of advanced life support (ALS) or basic life support (BLS) specialty or optional scope of practice programs.

II. DEFINITIONS

Public Safety AED Service Provider: A specialty program for public safety personnel. (See ICEMA Reference #16060 - Public Safety AED Service Provider.)

Emergency Medical Dispatch (EMD) Program: The reception, evaluation, processing and provision of dispatch life support; management of requests for emergency medical assistance; ongoing evaluation and improvement of the emergency medical dispatch process. (See ICEMA Reference #6120 - Emergency Medical Dispatch Center Requirements.)

Mobile Medic Specialty Program: A specialty program that utilizes boats, bicycles, motorcycles, golf carts and/or powered all-terrain vehicles or for ALS or BLS response designed to deliver EMT, AEMT, and/or EMT-P to the scene of injury and/or transport a patient from the scene of injury to other awaiting EMS units.

Optional Scope Program: Any EMT/AEMT/EMT-P program that may require approval from the ICEMA Medical Director to function outside of the basic scope of practice that is not initiated region-wide.

Specialty Program: Any program that may require approval from the ICEMA Medical Director to function due to regulations or any variance from standard ICEMA policies or protocols either in equipment or procedures.

Tactical Medicine for Special Operations: A specialty program that meets all the prerequisites established by POST/EMSA for the delivery of emergency medical care during law enforcement special operations. (See ICEMA Reference #6110 - Tactical Medicine for Special Operations.)

III. POLICY

- All providers interested in providing ALS specialty or EMT optional scope programs shall submit an application that will undergo a review process to determine eligibility.

- All specialty programs must submit a new application and be approved every two (2) years.
- All local optional scope programs must submit a new application and be approved at least every three (3) years or concurrently with State approval of the ICEMA Local Optional Scope of Practice whichever is sooner.
- An electronic patient care report (ePCR) must be initiated whenever contact is made with a patient. Patients refusing care or declining further care after treatment must sign a refusal of care and/or Against Medical Advice form.
- If paper downtime forms are utilized, EMS providers are required to submit an approved ePCR by the end of shift or within 24 hours of the close of the event (whichever is less).
- Radio communication failure protocols will not be used. Prior to base contact protocols will be followed. If further treatment is needed, radio contact with the base hospital should be established as soon as possible.
- All ePCRS utilizing a specialty program will be reviewed by the EMS provider as part of its Continuous Quality Improvement program. Review or submission of additional criteria may be required.
- EMS field personnel must accompany the patient to the hospital if utilizing optional scope medications or devices that the transporting EMS field personnel are not authorized to use.

IV. PROCEDURE FOR SPECIALTY AND OPTIONAL SCOPE PROGRAM APPROVAL

- Submit an original application to ICEMA indicating the type of program. The Specialty and Optional Scope Program Approval Application is available on the ICEMA website at ICEMA.net.
- Submit a copy of the proposed or renewal program which shall include:
 - A statement demonstrating a need for the program.
 - A description of the geographic area within which the specialty program will be utilized.
 - A detailed description of the operation of the program, such as special events, 24/7 and how the program will be implemented.
 - A description of how the program will interface with the EMS system and 9-1-1.

- A detailed description of the training program. For optional scope programs, include provisions for written test and demonstration of skills competencies.
- A detailed list of employees participating in this program. If there are changes in employees, ICEMA must be notified in writing within 10 days.
- A detailed description of any deviations from the Standard Drug and Equipment List, how equipment and drugs will be stored and/or transported and a program for maintenance of the equipment.
- A process for the reporting of any deviations or adverse events.
- A quality improvement plan or an amendment to the EMS providers' Quality Improvement Plan that describes the quality improvement process for the specialty program. The plan must comply with all provisions of the ICEMA Quality Improvement Plan and include provisions for 100% review of all patient care reports in which the specialty or optional scope program was attempted or utilized.
- ICEMA may require the collection and submission of additional criteria as necessary.
- Additional procedures for Mobile Medic Specialty Programs:
 - A statement indicating compliance with Department of Motor Vehicles rules for personal safety equipment and/or vehicle registration if applicable.
 - A list of type of vehicles utilized (bicycles, motorcycles, ATV).
 - Type of interim patient care report utilized and process for transfer of patient care documents in the field.
 - Type of communication devices utilized and the interface with ALS provider and transport.
- ~~Additional procedures for EMT King Airway Optional Skills Program:~~
 - ~~Authorization for EMTs to practice optional skills is limited to those whose certificate is active and who are employed by an ICEMA authorized EMS provider.~~
 - ~~Training in the use of perilaryngeal airway adjuncts must include not less than five (5) hours with skills competency demonstration every one (1) year for certified EMTs in approved optional skills programs.~~

~~➤ Comply with state regulations for EMT optional skills training and demonstration of competency.~~

- Additional procedures for Impedance Threshold Device (ITD) Specialty Programs:
 - Prior to deployment and utilization of ITDs, providers must demonstrate high performance compression fraction of at least 80% without the use of an automatic compression device either through retrospective or concurrent audits for six (6) months.
 - ITD must be used in conjunction with high performance CPR and may be used with automatic compression devices.
 - Submit initial/renewal course outline for approval to include:
 - Indications for use and when to remove the device for both basic and advanced airways.
 - Use of two-person bag-valve-mask ventilation when used in the absence of an advanced airway to ensure adequate seal to maintain the intended effect of the device.
 - Use in conjunction with high performance CPR, keeping compression rates between 100 - 120 per minute.
- Additional procedures for Local Optional Scope programs:
 - Authorization for EMTs or EMT-Ps to practice optional skills is limited to those whose certificate or license is active and who are employed by an ICEMA authorized EMS provider.
 - Initial training to include not less than five (5) hours with skills competency demonstration once every one (1) year.
 - Comply with State regulations for optional skills training and demonstration of competency.

V. DRUG AND EQUIPMENT LISTS

- Equipment and supplies carried and utilized by specialty program personnel shall be consistent and compatible with the drugs and equipment normally carried by ALS units.
- Equipment and supplies shall be based on the appropriate level of personnel utilized for the particular event.

VI. REFERENCES

<u>Number</u>	<u>Name</u>
6110	Tactical Medicine for Special Operations
6120	Emergency Medical Dispatch Center Requirements
16060	Public Safety AED Service Provider



BLS/LALS/ALS STANDARD DRUG AND EQUIPMENT LIST

Each ambulance and first responder unit shall be equipped with the following functional equipment and supplies. **This list represents mandatory items with minimum quantities** excluding narcotics, which must be kept within the range indicated. All expiration dates must be current. All packaging of drugs or equipment must be intact. No open products or torn packaging may be used.

All ALS (transport and non-transport) and BLS transport vehicles shall be inspected annually.

MEDICATIONS/SOLUTIONS

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Adenosine (Adenocard) 6 mg			1	1
Adenosine (Adenocard) 12 mg			2	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg		4 doses	4 doses	4 doses
Albuterol MDI with spacer		1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY	1 SPECIALTY PROGRAMS ONLY
Aspirin, chewable - 81 mg tablet		2	1 bottle	1 bottle
Atropine 1 mg preload			2	2
Calcium Chloride 1 gm preload			1	1
Dextrose 10% in 250 ml Water (D10W) *		2	2	2
Diphenhydramine (Benadryl) 50 mg			1	1
Epinephrine 1 mg/ml 1 mg		2	2	2
Epinephrine 0.1 mg/ml 1 mg preload			4	4
Glucagon 1 mg		1	1	1
Glucose paste	1 tube	1 tube	1 tube	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg			4	4
Irrigating Saline and/or Sterile Water (1000 cc)	2	1	1	2
Lidocaine 100 mg			3	3
Lidocaine 2% Intravenous solution			1	1
Lidocaine 2% (Viscous) dose			1	1
Magnesium Sulfate 10 gm			1	1
Naloxone (Narcan) 2 mg preload	2	2	2	2
Nitroglycerine (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening)		2	1	2
Normal Saline for Injection (10 cc)		2	2	2
Normal Saline 100 cc			1	2
Normal Saline 250 cc			1	1

Exchanged Medications/Solutions	BLS	LALS	ALS Non-Transport	ALS Transport
Normal Saline 500 ml and/or 1000 ml		2000 ml	3000 ml	6000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)			4	4
Ondansetron (Zofran) 4 mg IM/ IV			4	4
Sodium Bicarbonate 50 mEq preload			2	2
Tranexamic Acid (TXA) 1 gm			2	2

Non-Exchange Controlled Substance Medications MUST BE DOUBLE LOCKED	BLS	LALS	ALS Non-Transport	ALS Transport
Fentanyl			200-400 mcg	200-400 mcg
Midazolam			20-40 mg	20-40 mg
Ketamine			120-1000 mg	120-1000 mg

AIRWAY/SUCTION EQUIPMENT

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
CPAP circuits - all manufacture's available sizes	1 (if CPAP is carried)	1 (if CPAP is carried)	1 each	2 each
End-tidal CO2 device - Pediatric and Adult (may be integrated into bag)			1 each	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet			2 each	2 each
ET Tube holders - adult		1 each	1 each	2 each
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	2 each SPECIALTY PROGRAMS ONLY	1 each	1 each	2 each
Mask - Adult & Pediatric non-rebreather oxygen mask	2 each	2 each	2 each	2 each
Mask - Infant Simple Mask	1	1	1	1
Nasal cannulas - pediatric and adult	2 each	2 each	2 each	2 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr			1 each	1 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr			1 each	1 each
Nasopharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Needle Cricothyrotomy Device - Pediatric and adult or Needles for procedure 10, 12, 14 and/or 16 gauge			1 each 2 each	1 each 2 each
One way flutter valve with adapter or equivalent			1	1
Oropharyngeal Airways - (infant, child, and adult)	1 each	1 each	1 each	1 each
Rigid tonsil tip suction	1		1	1
Small volume nebulizer with universal cuff adaptor		2	2	2
Suction Canister	1		1	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each		1 each	1 each

Exchanged Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Ventilation Bags -				
Infant 250 ml	1	1	1	1
Pediatric 500 ml (or equivalent)	1	1	1	1
Adult	1	1	1	1
Water soluble lubricating jelly		1	1	1

Non-Exchange Airway/Suction Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Ambulance oxygen source -10 L /min for 20 minutes	1			1
Flashlight/penlight	1	1	1	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight			1 each	1 each
Laryngoscope handle with batteries - or 2 disposable handles			1	1
Magill Forceps - Pediatric and Adult			1 each	1 each
Manual powered suction device		1		
Portable oxygen with regulator - 10 L /min for 20 minutes	1	1	1	1
Portable suction device (battery operated)	1		1	1
Pulse Oximetry device	(SEE OPTIONAL EQUIPMENT SECTION, PG. 5)	1	1	1
Stethoscope	1	1	1	1
Wall mount suction device	1 (BLS TRANSPORT ONLY)			1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non-Transport	ALS Transport
Conductive medium or Pacer/Defibrillation pads			2 each	2 each
Disposable Tourniquets		2	2	2
ECG electrodes			20	20
EZ-IO Driver			1 each	1 each
EZ-IO Needles:				
25 mm			2 each	2 each
45 mm			1 each	1 each
Glucose monitoring device with compatible strips and OSHA approved single use lancets	1	1	1	1
3-way stopcock with extension tubing			2	2
IV Catheters - sizes 14, 16, 18, 20, 22, 24		2 each	2 each	2 each
Macro drip Administration Set		3	3	3
Micro drip Administration Set (60 drops /cc)		1	1	2

Exchanged IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non- Transport	ALS Transport
Mucosal Atomizer Device (MAD) for nasal administration of medication	2	2	2	4
Pressure Infusion Bag (disposable)		1	1	1
Razors		1	2	2
Safety Needles - 20 or 21 gauge and 23 or 25 gauge	2 each	2 each	2 each	2 each
Saline Lock Large Bore Tubing Needleless		2	2	2
Sterile IV dressing		2	2	2
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc catheter tip		2 each		
Syringes w/wo safety needles - 1 cc, 3 cc, 10 cc, 20 cc, 60 cc catheter tip			2 each	2 each

Non-Exchange IV/Needles/Syringes/Monitor Equipment	BLS	LALS	ALS Non- Transport	ALS Transport
12-lead ECG Monitor and Defibrillator with TCP and printout			1	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant (one of each size)	1	1	1	1
Capnography monitor and supplies, may be integrated in the cardiac monitor			1	1
Needle disposal system (OSHA approved)	1	1	1	1
Thermometer - Mercury Free with covers	1	1	1	1

OPTIONAL EQUIPMENT/MEDICATIONS

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non- Transport	ALS Transport
AED/defib pads - Adult (1), Pediatric (1)	1 each	1 each		
Ammonia Inhalants			2	2
Automatic CPR device (FDA approved)	1	1	1	1
Automatic transport ventilator (Specialty Program Only - ICEMA approved device)			1	1
Backboard padding	1	1	1	1
Buretrol			1	1
Chemistry profile tubes			3	3
CPAP - (must be capable of titrating pressure between 2 and 15 cm H ₂ O)	1 (optional)	1 (optional)	1	1
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3	3	3	3
EMS Tourniquet	1		1	1
Gum Elastic intubation stylet			2	2
Hemostatic Dressings *	1	1	1	1
IO Needles - Manual, Adult and Pediatric, Optional		Pediatric sizes only or EZ-IO needles and	1 each	1 each

Non-Exchange Optional Equipment/Medications	BLS	LALS	ALS Non-Transport	ALS Transport
		drivers		
IV infusion pump			1	1
IV warming device		1	1	1
Manual IV Flow Rate Control Device			1	1
Manual powered suction device	1	1	1	1
Multi-lumen peripheral catheter			2	2
Needle Thoracostomy Kit (prepackaged)			2	2
Pulse Oximetry device	1			
Translaryngeal Jet Ventilation Device			1	1
Vacutainer			1	1

* Hemostatic Dressings

- Quick Clot, Z-Medica
 - Quick Clot, Combat Gauze LE
 - Quick Clot, EMS Rolled Gauze, 4x4 Dressing, TraumaPad
- Celox
 - Celox Gauze, Z-Fold Hemostatic Gauze
 - Celox Rapid, Hemostatic Z-Fold Gauze
- HemCon ChitoFlex Pro Dressing

Note:

- The above products are “packaged” in various forms (i.e., Z-fold, rolled gauze, trauma pads, 4”x4”pads) and are authorized provided they are comprised of the approved product.
- Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.

DRESSING MATERIALS/OTHER EQUIPMENT/SUPPLIES

Exchanged Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
Adhesive tape - 1 inch	2	2	2	2
Air occlusive dressing	1	1	1	1
Ankle and wrist restraints, soft ties acceptable	1		1	1
Antiseptic swabs/wipes	10	10	10	10
Bedpan or fracture pan	1 (BLS TRANSPORT UNITS ONLY			1
Urinal	1 (BLS TRANSPORT UNITS ONLY			1
Cervical Collars - Rigid Pediatric and Adult all sizes or	2 each	2 each	2 each	2 each
Cervical Collars - Adjustable Adult and Pediatric	2 each	2 each	2 each	2 each
Cold Packs	2	2	2	2
Emesis basin or disposable bags and covered waste container	1	1	1	1
Head immobilization device	2	2	2	2
OB Kit	1	1	1	1
Pneumatic or rigid splints capable of splinting all extremities	4	2	2	4
Provodine/Iodine swabs/wipes or antiseptic equivalent		4	10	10
Roller bandages - 4 inch	6	3	3	6
Sterile bandage compress or equivalent	6	2	2	6
Sterile gauze pads - 4x4 inch	4	4	4	4
Sterile sheet for Burns	2	2	2	2
Universal dressing 10x30 inches	2	2	2	2

Non-Exchange Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non-Transport	ALS Transport
800 MHz Radio		1	1	1
Ambulance gurney	1 (BLS TRANSPORT UNITS ONLY			1
Bandage shears	1	1	1	1
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2	1	2	2
Pediatric Emergency Measuring Tape (Broselow, etc.)		1	1	1
Drinkable water in secured plastic container or equivalent	1 gallon			1 gallon
Long board with restraint straps	1	1	1	1
Pediatric immobilization board	1	1	1	1

Non-Exchange Dressing Materials/Other Equipment/Supplies	BLS	LALS	ALS Non- Transport	ALS Transport
Pillow, pillow case, sheets and blanket	1 set (BLS TRANSPORT UNITS ONLY)			1 set
Short extrication device	1	1	1	1
Straps to secure patient to gurney	1 set (BLS TRANSPORT UNITS ONLY)			1 set
Traction splint	1	1	1	1
Triage Tags - ICEMA approved	20	20	20	20



EMS AIRCRAFT STANDARD DRUG AND EQUIPMENT LIST

Each Aircraft shall be equipped with the following functional equipment and supplies. This list represents mandatory items with minimum quantities, to exclude narcotics, which must be kept within the range indicated. All expiration dates must be current. All packaging of drugs or equipment must be intact. No open products or torn packaging may be used.

MEDICATIONS/SOLUTIONS	AMOUNT
Adenosine (Adenocard) 6 mg	1
Adenosine (Adenocard) 12 mg	2
Albuterol Aerosolized Solution (Proventil) - unit dose 2.5 mg	3 doses
Aspirin, chewable - 81 mg tablet	1 bottle
Atropine 1 mg preload	2
Calcium Chloride 1 gm preload	1
Dextrose 10% in 250 ml Water (D10W) *	2
Diphenhydramine (Benadryl) 50 mg	1
Epinephrine 1 mg/ml 1 mg	2
Epinephrine 0.1 mg/ml 1mg preload	3
Glucagon 1 mg	1
Glucopaste	1 tube
Ipratropium Bromide Inhalation Solution (Atrovent) unit dose 0.5 mg	3
Lidocaine 100 mg	3
Lidocaine 2% Intravenous solution	1
Lidocaine 2% (Viscous)	1 dose
Magnesium Sulfate 10 gms	1
Naloxone (Narcan) 2 mg preload	2
Nitroglycerin (NTG) - Spray 0.4 mg metered dose and/or tablets (tablets to be discarded 90 days after opening.)	1
Normal Saline for Injection (10 cc)	2
Normal Saline 250 ml	1
Normal Saline 500 ml and/or 1000 ml	2000 ml
Ondansetron (Zofran) 4 mg Oral Disintegrating Tablets (ODT)	4
Ondansetron (Zofran) 4 mg IM/ IV	4
Sodium Bicarbonate 50 mEq preload	2
Tranexamic Acid (TXA) 1 gm	2

CONTROLLED SUBSTANCE MEDICATIONS-MUST BE DOUBLE LOCKED	AMOUNT
Fentanyl	200-400 mcg
Ketamine	120-1000 mg
Midazolam	20-40 mg

AIRWAY/SUCTION EQUIPMENT	AMOUNT
Aircraft Oxygen source -10 L /min for 20 minutes	1
C-PAP circuits - all manufacture's available sizes	1 each
End-tidal CO2 device - pediatric and adult (may be integrated into bag)	1 each
Endotracheal Tubes cuffed - 6.0 and/or 6.5, 7.0 and/or 7.5 and 8.0 and/or 8.5 with stylet	2 each
ET Tube holders - adult	1 each
Flashlight/penlight	1
King LTS-D Adult: Size 3 (yellow) Size 4 (red) Size 5 (purple)	1 each
Laryngoscope handle with batteries - or 2 disposable handles	1
Laryngoscope blades - #0, #1, #2, #3, #4 curved and/or straight	1 each
Magill Forceps - Pediatric and Adult	1 each
Nasal Cannulas - infant, pediatric and adult	2 each
Naso/Orogastric tubes - 10fr or 12fr, 14fr, 16fr or 18fr	1 each
Naso/Orogastric feeding tubes - 5fr or 6fr, and 8fr	1 each
Nasopharyngeal Airways - infant, child, and adult	1 each
Needle Cricothyrotomy Device (Approved) - Pediatric and adult <i>or</i>	1 each
Needles for procedure 10, 12, 14 and/or 16 gauge	2 each
Non Re-Breather O2 Mask - Pediatric and Adult, Infant Simple Mask	2 each
One way flutter valve with adapter or equivalent	1
Oropharyngeal Airways - infant, child, and adult	1 each
Portable Oxygen with regulator - 10 L /min for 20 minutes	1
Portable suction device (battery operated) <i>and/or</i> Wall mount suction device	1 each
Pulse Oximetry device	1
Small volume nebulizer with universal cuff adaptor	1
Stethoscope	1
Suction catheters - 6fr, 8fr or 10fr, 12fr or 14fr	1 each
Ventilation Bags - Infant 250 ml, Pediatric 500 ml and Adult 1 L	1 each
Water soluble lubricating jelly	1
Ridged tonsil tip suction	1

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT	AMOUNT
12-Lead ECG Monitor and Defibrillator with TCP and printout	1
800 MHz Radio	1
Blood pressure cuff - large adult or thigh cuff, adult, child and infant	1 set
Capnography monitor and supplies, may be integrated in the cardiac monitor	1
Conductive medium <i>or</i> Adult and Pediatric Pacer/Defibrillation pads	2 each
ECG - Pediatric and Adult	20 patches
EZ IO Needles and Driver 25 mm and 45 mm	2 each 1 each
3-way stopcock with extension tubing	2
IO Needles - Manual, Adult and Pediatric, <u>Optional</u>	1 each
IV Catheters - sizes 14, 16, 18, 20, 22, 24	2 each

IV/NEEDLES/SYRINGES/MONITORING EQUIPMENT	AMOUNT
Glucose monitoring device	1
Macro drip Administration Set	3
Micro drip Administration Set (60 drops/ml)	1
Mucosal Atomizer Device (MAD) for nasal administration of medication	4
Needle disposal system (OSHA approved)	1
Pressure infusion bag	1
Safety Needles - 20 or 21 gauge and 23 or 25 gauge	2 each
Saline Lock	2
Syringes w/wo safety needles - 1 ml, 3 ml, 10 ml, 20 ml	2 each
Syringe - 60 ml catheter tip	2
Thermometer - Mercury free with covers	1

DRESSING MATERIALS/OTHER EQUIPMENT SUPPLIES	AMOUNT
Adhesive tape - 1 inch	2
Air occlusive dressing	1
Aircraft stretcher or litter system with approved FAA straps that allows for Axial Spinal Immobilization	1
Ankle and wrist restraints, soft ties acceptable	1
Antiseptic swabs/wipes	
Bandage shears	1
Blanket or sheet	2
Blood Borne Pathogen Protective Equipment - (nonporous gloves, goggles face masks and gowns meeting OSHA Standards)	2
Cervical Collars - Rigid Pediatric & Adult all sizes <i>or</i> Cervical Collars - Adjustable Adult and Pediatric	1 each 1 each
Emesis basin or disposable bags and covered waste container	1
Head immobilization device	1
OB Kit	1
Pediatric Emergency Measuring Tape (Broselow, etc.)	1
Pneumatic or rigid splints capable of splinting all extremities	4
Providence/Iodine swabs/wipes or antiseptic equivalent	
Roller bandages - 4 inch	3
Sterile bandage compress or equivalent	6
Sterile gauze pads - 4x4 inch	4
Sterile Sheet for Burns	2
Traction splint	1
Universal Dressing 10x30 inches	2

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Ammonia Inhalants	2
Automatic ventilator (Approved)	1
Backboard padding	1
BLS AED/defib pads	1
Chemistry profile tubes	3

OPTIONAL EQUIPMENT/MEDICATIONS	Amount
Nerve Agent Antidote Kit (NAAK) - DuoDote or Mark I	3
D5W in bag	1
Hemostatic Dressing *	1
IV infusion pump	1
IV warming device	1
Manual powered suction device	1
Medical Tourniquet	1
Needle Thoracostomy Kit (prepackaged)	2
Pediatric immobilization board	1
Translaryngeal Jet Ventilation Device	1
Vacutainer	1

* Hemostatic Dressings

- Quick Clot, Z-Medica
Quick Clot, Combat Gauze LE
Quick Clot, EMS Rolled Gauze, 4x4 Dressing, TraumaPad
- Celox
Celox Gauze, Z-Fold Hemostatic Gauze
Celox Rapid, Hemostatic Z-Fold Gauze
- HemCon ChitoFlex Pro Dressing

Note:

- The above products are “packaged” in various forms (i.e., Z-fold, rolled gauze, trauma pads, and 4”x4” pads) and are authorized provided they are comprised of the approved product.
- Hemostatic Celox Granules, or granules delivered in an applicator, are not authorized.



MEDICATION - STANDARD ORDERS

Medications listed in this protocol may be used only for the purposes referenced by the associated ICEMA Treatment Protocol.

For Nerve Agent Antidote Kit (NAAK) or medications deployed with the ChemPack see Appendix I (Page 12).

Adenosine (Adenocard) - Adult (ALS)

Stable narrow-complex SVT or Wide complex tachycardia:

Adenosine, 6 mg rapid IVP followed immediately by 20 cc NS bolus, and Adenosine, 12 mg rapid IVP followed immediately by 20 cc NS bolus if patient does not convert. May repeat one (1) time.

Reference #s 7010, 7020, 11050

Albuterol (Proventil) Aerosolized Solution - Adult (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 6090, 7010, 7020, 11010, 11100

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Adult (LALS, ALS - Specialty Programs Only)

Albuterol MDI, four (4) puffs every ten (10) minutes for continued shortness of breath and wheezing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Albuterol (Proventil) - Pediatric (LALS, ALS)

Albuterol, 2.5 mg nebulized, may repeat two (2) times.

Reference #s 7010, 7020, 14010, 14030, 14070

Albuterol (Proventil) Metered-Dose Inhaler (MDI) - Pediatric (LALS, ALS - Specialty Programs Only)

Albuterol MDI, four (4) puffs every ten (10) minutes for continued shortness of breath and wheezing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Aspirin, chewable (LALS, ALS)

Aspirin, 325 mg PO chewed (one (1) adult non-enteric coated aspirin) or four (4) chewable 81 mg aspirin.

Reference #s 2020, 6090, 6110, 7010, 7020, 11060

Atropine (ALS)

Atropine, 0.5 mg IV/IO. May repeat every five (5) minutes up to a maximum of 3 mg or 0.04 mg/kg.

Organophosphate poisoning:

Atropine, 2 mg IV/IO, repeat at 2 mg increments every five (5) minutes if patient remains symptomatic.

Reference #s 6090, 6110, 7010, 7020, 11040, 12020, 13010

Atropine - Pediatric (ALS)

Organophosphate poisoning - Pediatrics less than 14 years of age:

Atropine, 0.005 mg/kg IV/IO not to exceed adult dose of 2 mg, repeat at 0.1 mg/kg increments every five (5) minutes if patient remains symptomatic

Reference #s 6090, 6110, 7010, 7020, 13010

Calcium Chloride - Adult (ALS)

Calcium Channel Blocker Poisonings (base hospital order only):

Calcium Chloride, 1 gm (10 ~~ml~~^{ml} of a 10% solution) IV/IO, ~~base hospital order only~~.

Reference #s 2020, 7010, 7020, 13010

For cardiac arrest with suspected hypocalcemia, hyperkalemia, hypermagnesemia or calcium channel blocker poisoning (base hospital order only):

Calcium Chloride, 1 gm (10 ml of a 10% solution) IV/IO

Reference #s 7010, 7020, 11070

Calcium Chloride - Pediatric (ALS)

Calcium Channel Blocker Poisonings (base hospital order only):

Calcium Chloride, 20 mg/kg IV/IO over five (5) minutes

Reference #s 7010, 7020, 13010

Dextrose - Adult (LALS, ALS)

Hypoglycemia - Adult with blood glucose less than 80 mg/dL:

Dextrose 10% /250 ml (D10W 25 gm) IV/IO Bolus

Reference #s 2020, 6090, 6110, 7010, 7020, 8010, 11050, 11080, 13020, 13030

Dextrose - Pediatric (LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:

Dextrose 10%/250 ml (D10W 25 gm) 0.5 gm/kg (5 ml/kg) IV/IO

Reference #s 2020, 7010, 7020, 13020, 13030, 14040, 14050, 14060

Diphenhydramine - Adult (ALS)

Diphenhydramine, 25 mg IV/IO

Diphenhydramine, 50 mg IM

Reference #s 6090, 6110, 7010, 7020, 11010, 13010

Diphenhydramine - Pediatric (ALS)

Allergic reaction:

2 years to 14 years Diphenhydramine, 1 mg/kg slow IV/IO, not to exceed adult dose of 25 mg, **or**

Diphenhydramine, 2 mg/kg IM not to exceed adult dose of 50 mg IM

Reference #s 7010, 7020, 14030

Epinephrine (1 mg/ml) - Adult (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:

Epinephrine, 0.3 mg IM. May repeat after fifteen (15) minutes one (1) time if symptoms do not improve.

Reference # 11010

Epinephrine (0.1 mg/ml) - Adult (ALS)

For persistent severe anaphylactic reaction:

Epinephrine (0.1 mg/ml), 0.1 mg slow IVP/IO. May repeat every five (5) minutes as needed to total dosage of 0.5 mg.

Reference # 11010

Cardiac Arrest, Asystole, PEA:

Epinephrine (0.1 mg/ml), 1 mg IV/IO.

Reference #s 2020, 6090, 6110, 7010, 7020, 11010, 11070, 12020

Epinephrine (0.01 mg/ml) - Adult (ALS)

Post resuscitation, persistent profound shock and hypotension (Push Dose Epinephrine):

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 1 ml every one (1) to five (5) minutes titrated to maintain SBP more than 90 mm Hg.

Reference #s 2020, 6090, 6110, 7010, 7020, 7040, ~~11090~~1130, 11070

Epinephrine (1 mg/ml) - Pediatric (LALS, ALS)

Severe Bronchospasm, Asthma Attack, Pending Respiratory Failure, Severe Allergic Reactions:

Epinephrine, 0.01 mg/kg IM not to exceed adult dosage of 0.3 mg.

Reference #s 2020, 6090, 7010, 7020, 14010, 14030

Epinephrine (0.1 mg/ml) - Pediatric (ALS)

Anaphylactic reaction (no palpable radial pulse and depressed level of consciousness):

Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO, no more than 0.1 mg per dose. May repeat to a maximum of 0.5 mg.

Cardiac Arrest:

1 day to 8 years	Epinephrine (0.1 mg/ml), 0.01 mg/kg IV/IO (do not exceed adult dosage)
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9 to 14 years	Epinephrine (0.1mg/ml), 1.0 mg IV/IO
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Newborn Care:

Epinephrine (0.1 mg/ml), 0.01mg/kg IV/IO if heart rate is less than 60 after one (1) minute after evaluating airway for hypoxia and assessing body temperature for hypothermia.

Epinephrine (0.1 mg/ml), 0.005 mg/kg IV/IO every ten (10) minutes for persistent hypotension as a base hospital order or in radio communication failure.

Reference # 14090

Epinephrine (0.01 mg/ml) - Pediatric (ALS)

Post resuscitation, profound shock and hypotension (Push Dose Epinephrine):

Prepare Epinephrine 0.01 mg/ml solution by mixing 9 ml of normal saline with 1 ml of Epinephrine 0.1 mg/ml in a 10 ml syringe. Administer 0.1ml/kg (do not exceed adult dosage), every one (1) to five (5) minutes. Titrate to maintain a SBP more than 70 mm Hg.

Reference #s 2020, 7010, 7020, 7040, ~~9130+1090~~, 14040

Fentanyl - Adult (ALS)

Chest Pain (Presumed Ischemic Origin):

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Acute traumatic injuries, acute abdominal/flank pain, burn injuries, Cancer pain, Sickle Cell Crisis:

Fentanyl, 50 mcg slow IV/IO push over one (1) minute. May repeat every five (5) minutes titrated to pain, not to exceed 200 mcg IV/IO, **or**

Fentanyl, 100 mcg IM/IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Pacing, synchronized cardioversion:

Fentanyl, 50 mcg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 200 mcg.

Fentanyl, 100 mcg IN. May repeat 50 mcg every ten (10) minutes titrated to pain, not to exceed 200 mcg.

Reference #s 2020, 6090, 6110, 7010, 7020, 7030, 10190, 11060, 11100, 11140, 13030, 15010

Fentanyl - Pediatric (ALS)

Fentanyl, 0.5 mcg/kg slow IV/IO over one (1) minute. May repeat in five (5) minutes titrated to pain, not to exceed 100 mcg.

Fentanyl, 1 mcg/kg IM/IN, may repeat every ten (10) minutes titrated to pain not to exceed 200 mcg.

Reference #s 2020, 6110, 7010, 7020, 7030, 11060, 13030, 14070, 15020

Glucose - Oral - Adult (BLS, LALS, ALS)

Adult with blood glucose less than 80 mg/dL:

Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 11080, 11090, 11110, 13020

Glucose - Oral - Pediatric (BLS, LALS, ALS)

Hypoglycemia - Neonates (0 - 4 weeks) with blood glucose less than 35 mg/dL or pediatric patients (more than 4 weeks) with glucose less than 60 mg/dL:

Glucose - Oral, one (1) tube for patients with an intact gag reflex and hypoglycemia.

Reference #s 7010, 7020, 14050, 14060

Glucagon - Adult (LALS, ALS)

Glucagon, 1 mg IM/SC/IN, if unable to establish IV. May administer one (1) time only.

Beta blocker Poisoning (base hospital order only):

Glucagon, 1 mg IV/IO (~~base hospital order only~~)

Reference #s 6090, 6110, 7010, 7020, 11080, 13010, 13030

Glucagon - Pediatric (LALS, ALS)

Hypoglycemia, if unable to establish IV:

Glucagon, 0.0~~325~~ mg/kg IM/IN, if unable to start an IV. May be repeated one (1) time after twenty (20) minutes for a combined maximum dose of 1 mg.

Reference #s 7010, 7020, 13030, 14050, 14060

Beta blocker poisoning (base hospital order only):

Glucagon, 0.03 mg/kg IV/IO

Reference #'s 6090, 6110, 7010, 7020, 13010

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol Adult (ALS)

Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 11010, 11100

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol Adult (ALS - Specialty Programs Only)

When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 6090, 6110, 7010, 7020, 11010, 11100

Ipratropium Bromide (Atrovent) Inhalation Solution use with Albuterol - Pediatric (ALS)

1 day to 12 months Atrovent, 0.25 mg nebulized. Administer one (1) dose only.

1 year to 14 years Atrovent, 0.5 mg nebulized. Administer one (1) dose only.

Reference #s 7010, 7020, 14010, 14030, 14070

Ipratropium Bromide (Atrovent) Metered-Dose Inhaler (MDI) use with Albuterol - Pediatric (ALS - Specialty Programs Only)

When used in combination with Albuterol MDI use Albuterol MDI dosing.

Reference #s 6090, 6110, 7010, 7020, 14010, 14030, 14070

Ketamine - Adult (ALS)

Acute traumatic injury, acute abdominal/flank pain, burn injuries, cancer related pain and sickle cell crisis:

Ketamine, 0.3 mg/kg to a max of 30 mg in a 50 - 100 ml of NS via IV over five (5) minutes. May repeat one (1) time, after 15 minutes, if pain score remains at five (5) or higher. Do not administer IVP, IO, IM, or IN.

This is the official pain scale to be used in patient assessment and documented on the PCR.



Reference #s 7010, 7020, 11140

Lidocaine - Adult (ALS)

VT (pulseless)/VF:

Initial Dose: Lidocaine, 1.5 mg/kg IV/IO

For refractory VT (pulseless)/VF, may administer an additional 0.75 mg/kg IV/IO, repeat one (1) time in five (5) to ten (10) minutes; maximum total dose of 3 mg/kg.

V-Tach, Wide Complex Tachycardia - with Pulses:

Lidocaine, 1.5 mg/kg slow IV/IO

May administer an additional 0.75 mg/kg slow IV/IO; maximum total dose of 3 mg/kg.

Reference #s 2020, 6090, 7010, 7020, 8010, 10190, 11050, 11070, 15010

Lidocaine - Pediatric (ALS)*Cardiac Arrest:*

1 day to 8 years	Lidocaine, 1.0 mg/kg IV/IO
9 to 14 years	Lidocaine, 1.0 mg/kg IV/IO

May repeat Lidocaine at 0.5 mg/kg after five (5) minutes; maximum total dose of 3 mg/kg.

Reference #s 2020, 7010, 7020, 14040

Lidocaine 2% (Intravenous Solution) - Pediatric and Adult (ALS)*Pain associated with IO infusion:*

Lidocaine, 0.5 mg/kg slow IO push over two (2) minutes, not to exceed 40 mg total.

Reference #s 2020, 7010, 7020, 10140, 10190

~~Lidocaine 2% Gel (Viscous) – Pediatric and Adult (ALS)~~~~*Pain associated with Nasogastric/Orogastric Tube insertion.*~~~~*Reference # 10190*~~**Magnesium Sulfate (ALS)***Polymorphic Ventricular Tachycardia:*

Magnesium Sulfate, 2 gm IV/IO bolus over five (5) minutes for polymorphic VT if prolonged QT is observed during sinus rhythm post-cardioversion.

Eclampsia (Seizure/Tonic/Clonic Activity):

Magnesium Sulfate, 4 gm IV/IO slow IV push over three (3) to four (4) minutes.

Magnesium Sulfate, 10 mg/min IV/IO drip to prevent continued seizures.

Reference #s 2020, 7010, 7020, 8010, 14080

Severe Asthma/Respiratory Distress (ALS) (base hospital order only):

Magnesium Sulfate, 2 gm slow IV drip over 20 minutes. Do not repeat.

Reference# 11010

Magnesium Sulfate - Pediatric (ALS)*Severe Asthma/Respiratory Distress (base hospital order only):*

Magnesium Sulfate, 50mg/kg slow IV drip over 20 minutes. Do not exceed the adult dosage of 2 gm total. Do not repeat.

Reference # 14010

Midazolam (Versed) - Adult (ALS)*Behavioral Emergencies, with suspected excited delirium:*

Midazolam, 5 mg IM/IN or IV/IO push. May repeat once for a total dosage of 10 mg.

Reference # 11130

Seizure:

Midazolam, 2.5 mg IV/IO/IN. May repeat in five (5) minutes for continued seizure activity,
or

Midazolam, 5 mg IM. May repeat in ten (10) minutes for continued seizure activity.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Pacing, synchronized cardioversion:

Midazolam, 2 mg slow IV/IO push or IN

Reference #s 6090, 6110, 7010, 7020, 10190, 11080, 13020, 14080

Midazolam (Versed) - Pediatric (ALS)*Seizures:*

Midazolam, 0.1 mg/kg IV/IO with maximum dose 2.5 mg. May repeat Midazolam in five (5) minutes, **or**

Midazolam, 0.2 mg/kg IM/IN with maximum dose of 5 mg. May repeat Midazolam in ten (10) minutes for continued seizure.

Assess patient for medication related reduced respiratory rate or hypotension.

Maximum of three (3) doses using any combination of IV/IO/IM/IN may be administered for continued seizure activity. Contact base hospital for additional orders and to discuss further treatment options.

Reference #s 7010, 7020, 14060

Naloxone (Narcan) - Adult (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IM/IN, may repeat Naloxone 0.5 mg IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 7010, 7020, 8050 11080

Naloxone (Narcan) - Adult (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

Naloxone, 0.5 mg IV/IO/IM/IN, may repeat Naloxone 0.5 mg IV/IO/IM/IN every two (2) to three (3) minutes if needed.

Do not exceed 10 mg of Naloxone total regardless of route administered.

Reference #s 6110, 7010, 7020, 11080

Naloxone (Narcan) - Pediatric (BLS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years Naloxone, 0.1 mg/kg IM/IN (do not exceed the adult dose of 0.5 mg per administration)

9 to 14 years Naloxone, 0.5 mg IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IM/IN.

Reference #s 7010, 7020, 8050, 14040, 14050

Naloxone (Narcan) - Pediatric (LALS, ALS)

For resolution of respiratory depression related to suspected opiate overdose:

1 day to 8 years Naloxone, 0.1 mg/kg IV/IO/IM/IN (do not exceed the adult dose of 0.5 mg per administration)

9 to 14 years Naloxone, 0.5 mg IV/IO/IM/IN

May repeat every two (2) to three (3) minutes if needed. Do not exceed the adult dosage of 10 mg total IV/IO/IM/IN.

Reference #s 7010, 7020, 14040, 14050

Nitroglycerin (NTG) (LALS, ALS)

Nitroglycerin, 0.4 mg sublingual/transmucosal.

One (1) every three (3) minutes as needed. May be repeated as long as patient continues to have signs of adequate tissue perfusion. **If a Right Ventricular Infarction is suspected, the use of nitrates requires base hospital contact.**

Nitroglycerin is contraindicated if there are signs of inadequate tissue perfusion or if sexual enhancement medications have been utilized within the past forty-eight (48) hours.

Reference #s 6090, 6110, 7010, 7020, 11010, 11060

Ondansetron (Zofran) - Patients four (4) years old to Adult (ALS)

Nausea/Vomiting:

Ondansetron, 4 mg slow IV/IO/ODT

All patients four (4) to eight (8) years old: May administer a total of 4 mgs of Ondansetron prior to base hospital contact.

All patients nine (9) and older: May administer Ondansetron 4 mg; may repeat two (2) times, at ten (10) minute intervals, for a total of 12 mgs prior to base hospital contact.

May be used as prophylactic treatment of nausea and vomiting associated with narcotic administration.

Reference #s 6110, 7010, 7020, 9120, 10100, 15010, 15020

Oxygen (non-intubated patient per appropriate delivery device)

General Administration (Hypoxia):

Titrate Oxygen at lowest rate required to maintain SPO₂ at 94%. Do not administer supplemental oxygen for SPO₂ more than 95%.

Chronic Obstructive Pulmonary Disease (COPD):

Titrate Oxygen at lowest rate required to maintain SPO₂ at 90%. Do not administer supplemental oxygen for SPO₂ more than 91%.

Reference #s 9010, 9120, 11010, 11020, 11040, 11050, 11060, 11080, 11090, 11100, 11150, 13010, 13020, 13030, 14010, 14020, 14030, 14050, 14060, 14070, 14080, 14090, 15010, 15020

Sodium Bicarbonate - Adult (ALS) (~~base hospital order only~~)

Tricyclic Poisoning (base hospital order only):

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #s 2020, 7010, 7020, 13010

For cardiac arrest with suspected metabolic acidosis, hyperkalemia or tricyclic poisoning (base hospital order only):

Sodium Bicarbonate, 50 mEq IV/IO

Reference #'s 7010, 7020, 11070

Sodium Bicarbonate - Pediatric (ALS)

Tricyclic Poisoning (base hospital order only)

Sodium Bicarbonate, 1 mEq/kg IV/IO

Reference #'s 7010, 7020, 13010

Tranexamic Acid (TXA) - Patients 15 years of age and older (ALS)

Signs of hemorrhagic shock meeting inclusion criteria:

Administer TXA 1 gm in 50 - 100 ml of NS via IV/IO over ten (10) minutes. Do not administer IVP as this will cause hypotension.

Reference #s 7010, 7020, 15010

APPENDIX I

Medications for self-administration or with deployment of the ChemPack.

Medications listed below may be used only for the purposes referenced by the associated ICEMA Treatment Protocol. Any other use, route or dose other than those listed, must be ordered in consultation with the base hospital physician.

Atropine - Pediatric (BLS, AEMT-Auto-injector only with training, ALS)

Known nerve agent/organophosphate poisoning with deployment of the ChemPack using:

Two (2) or more mild symptoms: Administer the weight-based dose listed below as soon as an exposure is known or strongly suspected. If severe symptoms develop after the first dose, two (2) additional doses should be repeated in rapid succession ten (10) minutes after the first dose; do not administer more than three (3) doses. If profound anticholinergic effects occur in the absence of excessive bronchial secretions, further doses of atropine should be withheld.

One (1) or more severe symptoms: Immediately administer (3) three weight-based doses listed below in rapid succession.

Weight-based dosing:

Less than 6.8 kg (less than 15 lbs):	0.25 mg, IM using multi-dose vial
6.8 to 18 kg (15 to 40 lbs):	0.5 mg, IM using AtroPen auto-injector
18 to 41 kg (40 to 90 lbs):	1 mg, IM using AtroPen auto-injector
More than 41 kg (more than 90 lbs):	2 mg, IM using multi-dose vial

Symptoms of insecticide or nerve agent poisoning, as provided by manufacturer in the AtroPen product labeling, to guide therapy:

Mild symptoms: Blurred vision, bradycardia, breathing difficulties, chest tightness, coughing, drooling, miosis, muscular twitching, nausea, runny nose, salivation increased, stomach cramps, tachycardia, teary eyes, tremor, vomiting, or wheezing.

Severe symptoms: Breathing difficulties (severe), confused/strange behavior, defecation (involuntary), muscular twitching/generalized weakness (severe), respiratory secretions (severe), seizure, unconsciousness, urination (involuntary).

NOTE: Infants may become drowsy or unconscious with muscle floppiness as opposed to muscle twitching.

Reference #s 7040, 13010, 13040

Diazepam (Valium) - Adult (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 10 mg (5 mg/ml) auto-injector IM (if IV is unavailable), **or**
Diazepam 2.5 mg IV

Reference # 13040

Diazepam (Valium) - Pediatric (ALS)

For seizures associated with nerve agent/organophosphate exposure ONLY with the deployment of the ChemPack:

Diazepam 0.05 mg/kg IV

Reference # 13040

Nerve Agent Antidote Kit (NAAK)/Mark I or DuoDote (containing Atropine/Pralidoxime Chloride for self-administration or with deployment of the ChemPack) - Adult

Nerve agent exposure with associated symptoms:

One (1) NAAK auto-injector IM into outer thigh. May repeat up to two (2) times every ten (10) to fifteen (15) minutes if symptoms persist.

Reference #s 7010, 7020, 13010, 13040



EMS AIRCRAFT UTILIZATION

(San Bernardino County Only)

I. PURPOSE

To establish 911 EMS aircraft utilization and medical transportation criteria for San Bernardino County.

II. POLICY

- All EMS aircraft requests from the field in San Bernardino County will be coordinated by ICEMA's designated EMS Aircraft Dispatch Center (ADC). Currently Com-Center.
- EMS aircraft may be requested by EMS providers when a patient's condition is of a time sensitive nature and where transport times may result in a poor outcome. EMS providers must contact ADC to request aircraft.
- At the time of dispatch, the ADC shall utilize the closest available EMS aircraft proximate to the scene of the incident using Automatic Flight Following (AFF) as the determining factor.
- If two (2) or more EMS aircraft are co-located and/or within close distance (less than a mile), the ADC shall institute a rotation system of all EMS aircraft. .
- The ADC shall determine the closest and most appropriate EMS aircraft and inform the EMS providers what EMS aircraft will be utilized -this will include an accurate Estimated Time of Arrival (ETA). ETA will be determined by time of dispatch until EMS aircraft is over scene, and includes the total amount of time for crew preparation, flight planning, aircraft pre-flight, take-off, and flight time to over scene.
- If responding EMS aircraft requires reconfiguration before responding or after arriving on scene, the estimated reconfiguration time will be added to the ETA.
- The destination decision will be made in accordance with established ICEMA policies, procedures, and protocols, and may be changed by the flight crew in conjunction with the pilot in command based only on patient or flight safety concerns including weather conditions.

- The destination may change based upon approved hospital diversion per ICEMA Reference #8060 - Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only).
- All air transports will undergo a Quality Improvement (QI) review following dispatch and transport.

III. EMS AIRCRAFT ACTIVATION INDICATIONS

- Responding providers may request the dispatch of EMS aircraft simultaneously with ground resources when a high potential for injury is identified.

Commented [GL1]: Recommendation that this bullet specifically say Helicopter Air Ambulance (HAA)

AND

Ground transport from scene to closest most appropriate facility is estimated at greater than 45 minutes.

Commented [GL2]: Recommendation of 30 minutes if a time estimation is required. Recommend change to ground personnel estimate of all factors resulting in 15 minutes or more of saved time.

IV. EMS AIRCRAFT TRANSPORT INDICATIONS

- The determination to utilize a 9-1-1 dispatched EMS aircraft must be made with the use of a thorough and appropriate physical assessment by qualified EMS field personnel on scene. Judicious use of this resource be made with careful consideration of the following elements:
 - The injury is of a time-sensitive, critical nature requiring Specialty Care Center services.
 - The benefit of air-ambulance transport is clearly greater than ground transportation. An acceptable standard is a 15 minute time differential in favor of air transportation.
 - The needs of the patient and scene management supersede all other considerations.

V. EMS AIRCRAFT CANCELLATION INDICATIONS

- If an EMS aircraft responds to a scene prior to ground transport contact with the patient, the aircraft will be cancelled if the Incident Commander, in consultation with the most medically-qualified first responder, determines it is not needed.
 - If ground transport is the first to arrive on scene they may cancel a dispatched airship if they determine that air transport is not needed.

VI. SPECIAL CONSIDERATIONS

- Transport stable snakebite patients from the field by ground to the closest hospital.
- Mechanism of injury alone is not criteria for transport by air.
- patients with unmanageable airways shall be transported to the closest hospital for airway stabilization and, on its own, does not constitute an indication for EMS aircraft utilization.
- If a request to transport is denied by the initial dispatched aircraft, the second aircraft shall be notified of the denial, and the reason for the denial.
- If the patient is combative due to suspected traumatic injury, communication with flight personnel is essential.
- Patients with exposure to hazardous materials must be decontaminated on scene before consideration of utilization of EMS aircraft.
- Medical transport by EMS aircraft is not be suitable in the following situations:
 - Cardiac arrest when the patient is not responding to prehospital therapy.
 - Patients who are violent or have behavioral emergencies.

V. REFERENCE

<u>Number</u>	<u>Name</u>
8060	Requests for Ambulance Redirection and Hospital Diversion (San Bernardino County Only)
<u>15010</u>	Trauma-Adult
<u>15030</u>	Trauma Triage Criteria
<u>11060</u>	Suspected Acute Myocardial Infarction
<u>11110</u>	Stroke Treatment-Adult
<u>8130</u>	Destination protocol



CARDIAC ARREST - ADULT

High performance (HP) CPR is an organized approach to significantly improve the chance of survival for patients who suffer an out-of-hospital cardiac arrest (OHCA). Return of spontaneous circulation (ROSC) is resumption of sustained perfusing cardiac activity associated with significant respiratory effort after cardiac arrest. Signs of ROSC include breathing, coughing, patient movement and a palpable pulse, or a measurable blood pressure without the use of an automatic compression device.

The principles for HP CPR include:

- Minimize interruptions of chest compressions.
- Ensure proper depth of chest compressions of 2" - 2.5" allowing full chest recoil (no leaning on chest).
- Proper chest compression rate at 100 - 120 per minute.
- Avoid compressor fatigue by rotating compressors every two (2) minutes. Ventilations shall be sufficient to cause minimal chest rise, avoiding hyperventilation as it can decrease survival.

Advanced airways can be safely delayed in OHCA patients until ROSC is achieved if the airway is effectively managed by BLS Interventions. BVM offers excellent oxygenation and ventilation without disrupting high quality compressions.

Base hospital contact is not required to terminate resuscitative measures, if the patient meets criteria set forth below in the Termination of Efforts in the Prehospital Setting.

I. FIELD ASSESSMENT/TREATMENT INDICATORS

Cardiac arrest in a non-traumatic setting.

II. BLS INTERVENTIONS

- Assess patient, begin HP CPR and maintain appropriate BLS airway measures.
- Place patient on AED, if available. To minimize the "hands off" interval before a rhythm analysis/shock, complete chest compression cycle without an added pause for ventilations or pulse check just before rhythm analysis.

- If shock is advised, perform HP CPR compressions while AED is charging. Remove hands from patient and deliver shock then immediately resume uninterrupted HP CPR for two (2) minutes.
- Do not delay HP CPR for post-shock pulse check or a rhythm analysis.
- After two (2) minutes of HP CPR, analyze rhythm using AED while checking for pulse.

III. LIMITED ALS (LALS) INTERVENTIONS

- Perform activities identified in the BLS interventions.
- Establish peripheral intravenous access and administer a 500 ml bolus of normal saline (NS).
- BLS airway with BVM is the airway of choice during active HP CPR.

IV. ALS INTERVENTIONS

- Initiate HP CPR and continue appropriate BLS Interventions while applying the cardiac monitor without interruption to chest compressions.
- Determine cardiac rhythm and defibrillate if indicated. After defibrillation, immediately began HP CPR. Begin a two (2) minute cycle of HP CPR.
- Obtain IV/IO access.
- BLS airways should be maintained during active CPR. Endotracheal intubation is the advanced airway of choice if BLS airway does not provide adequate ventilation. Establish advanced airway per ICEMA Reference #10190 - Procedure - Standard Orders without interruption to chest compressions.
- Utilize continuous quantitative waveform capnography, for the monitoring of patients airway, the effectiveness of chest compressions and for possible early identification of ROSC. Document the waveform and the capnography number in mm HG in the ePCR.

NOTE: Capnography **shall** be used for all cardiac arrest patients.

- Insert NG/OG tube to relieve gastric distension per ICEMA Reference #10190 - Procedure - Standard Orders.

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

- Defibrillate at 360 joules for monophasic or biphasic equivalent per manufacture. If biphasic equivalent is unknown use maximum available.
- Perform HP CPR immediately after each defibrillation for two (2) minutes, without assessing the post-defibrillation rhythm.
- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders every five (5) minutes, without interruption of HP CPR unless capnography indicates possible ROSC.
- Reassess rhythm for no more than ten (10) seconds after each two (2) minute cycle of HP CPR. If VF/VT persists, defibrillate as above.
- After two (2) cycles of HP CPR, consider administering:
Lidocaine per ICEMA Reference #7040 - Medication - Standard Orders, may repeat.
- If patient remains in pulseless VF/VT after 20 minutes of CPR, consult base hospital.

Pulseless Electrical Activity (PEA) or Asystole

- Assess for reversible causes and initiate treatment.
- Continue HP CPR with evaluation of rhythm (no more than 10 seconds) every two (2) minutes.
- Administer fluid bolus of 300 ml NS IV, may repeat.
- Administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders every 5 (five) minutes without interruption of HP CPR.
- Base hospital may order the following:
 - Sodium Bicarbonate per ICEMA Reference #7040 - Medication Standard Orders.
 - Calcium Chloride per ICEMA Reference #7040 - Medication Standard Orders.

Stable ROSC

- Obtain a 12-lead ECG, regardless of 12-lead ECG reading, transport to the closest STEMI Receiving Center, per ICEMA Reference #8130 - Destination Policy.

- Monitor ventilation to a capnography value between 35 mm Hg and 45 mm Hg.
- Utilize continuous waveform capnography to identify loss of circulation.
- For persistent profound shock and hypotension, administer Push Dose Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.

Termination of Efforts in the Prehospital Setting

- The decision to terminate efforts in the field should take into consideration, first, the safety of personnel on scene, and then family and cultural considerations.
- Consider terminating resuscitative efforts in the field if any of the following criteria are met after 20 minutes of HP CPR with ALS Interventions:
 - No shocks were delivered.
 - Arrest not witnessed by EMS field personnel.
 - No ROSC .
 - Capnography waveform reading less than 15 mm Hg.
 - Persistent asystole, agonal rhythm or pulseless electrical activity (PEA) at a rate of less than 40 bpm.
- If patient has any signs of pending ROSC (i.e., capnography waveform trending upwards, PEA greater than 40 bpm), then consider transportation to a STEMI Receiving Center.
- Contact local law enforcement to advise of prehospital determination of death.
- Provide comfort and care for survivors.

V. REFERENCES

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
8130	Destination Policy
10190	Procedure - Standard Orders
12010	Determination of Death on Scene



POISONINGS

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Altered level of consciousness.
- Signs and symptoms of substance ingestion, inhalation, injection or surface absorption.
- History of substance poisoning.
- For nerve agent, organophosphate or carbamate exposure in which the ChemPack has been deployed, refer to ICEMA Reference #13040 - Nerve Agent Antidote Kit (Training, Storage and Administration).

II. PRIORITIES

- Assure the safety of EMS field personnel, initiate decontamination and isolation procedures as indicated.
- Assure and maintain ABCs.
- Determine degree of physiological distress.
- Obtain vital signs, history and complete physical assessment including the substance ingested, the amount, the time substance was ingested and the route.
- If appropriate and can be safely transported, bring ingested substance to the hospital with patient.
- Expeditious transport.

III. BLS INTERVENTIONS

- Assure and maintain ABCs.
- Obtain oxygen saturation on room air, unless detrimental to patient condition. Administer oxygen per ICEMA Reference #7040 - Medication - Standard Orders.
- Contact poison control (1-800-222-1222).

- Obtain accurate history of incident:
 - Name of product or substance.
 - Quantity ingested, and/or duration of exposure.
 - Time elapsed since exposure.
 - Pertinent medical history, chronic illness, and/or medical problems within the last twenty-four (24) hours.
 - Patient medication history.
- Obtain and monitor vital signs.
- Expeditious transport.

IV. LIMITED ALS (LALS) INTERVENTIONS PRIOR TO BASE HOSPITAL CONTACT

- Perform activities identified in the BLS Interventions.
- Obtain vascular access at a TKO rate or if signs of inadequate tissue perfusion, administer 500 cc fluid challenge and repeat until perfusion improves.
- For pediatric patients with signs of inadequate tissue perfusion, administer 20 ml/kg IV and repeat until perfusion improves.

V. ALS INTERVENTIONS PRIOR TO BASE HOSPITAL CONTACT

- Perform activities identified in the BLS and LALS Interventions.
- Monitor cardiac status.
- For phenothiazine “poisoning” with ataxia and/or muscle spasms, administer Diphenhydramine per ICEMA Reference #7040 - Medication - Standard Orders.
- For known organophosphate poisoning, administer Atropine per ICEMA Reference #7040 - Medication - Standard Orders.
- For seizures associated with nerve agent or organophosphate poisoning, administer Midazolam per ICEMA Reference #7040 - Medication - Standard Orders.

- For seizures associated with nerve agent or organophosphate poisoning, with deployment of the ChemPack, administer Diazepam per ICEMA Reference #7040 - Medication - Standard Orders.

VI. BASE HOSPITAL MAY ORDER THE FOLLOWING

- 1.* For tricyclic poisonings, administer Sodium Bicarbonate per ICEMA Reference #7040 - Medication - Standard Orders.
- 2.* For calcium channel blocker poisonings with persistent hypotension or bradycardic arrhythmias, administer Calcium Chloride per ICEMA Reference #7040 - Medication - Standard Orders.
- 3.* For beta blocker poisonings, administer Glucagon per ICEMA Reference #7040 - Medication - Standard Orders.

~~* May be done during radio communication failure (RCF).~~

VII. REFERENCES

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
13040	Nerve Agent Antidote Kit (Training, Storage and Administration)



ALLERGIC REACTIONS - PEDIATRIC (Less than 15 years of age)

I. FIELD ASSESSMENT/TREATMENT INDICATORS

- Signs and Symptoms of an acute allergic reaction.
- History of Exposure to possible allergen.

II. BLS INTERVENTIONS

- Recognize signs/symptoms of respiratory distress for age.
- Reduce anxiety, assist patient to assume POC.
- Oxygen administration as clinically indicated (humidified oxygen preferred).
- Assist patient with self-administration of prescribed Epinephrine device.
- Assist patient with self-administration of prescribed Diphenhydramine.

III. LIMITED ALS (LALS) INTERVENTIONS - PEDIATRIC (Less than 15 years of age)

- Perform activities identified in the BLS Interventions.
- Maintain airway with appropriate adjuncts, obtain oxygen saturation on room air if possible.
- Albuterol per ICEMA Reference #7040 - Medication - Standard Orders.
- If no response to Albuterol, consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.
- For symptomatic hypotension with poor perfusion, consider fluid bolus of 20 ml/kg of NS not to exceed 300 ml NS and repeat as indicated.
- Establish IV/IO access if indicated.
- For anaphylactic shock (e.g., no palpable radial pulse and a depressed level of consciousness), administer Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.

IV. ALS INTERVENTIONS

- Perform activities identified in the BLS and LALS Interventions.
- Albuterol with Atrovent per ICEMA Reference #7040 - Medication - Standard Orders.
- If no response to Albuterol and Atrovent, consider Epinephrine per ICEMA Reference #7040 - Medication - Standard Orders.
- Administer Diphenhydramine per ICEMA Reference #7040 - Medication - Standard Orders for patients two (2) years of age or older.
- If apneic and unable to ventilate, consider oral endotracheal intubation per ICEMA Reference #10190 - Procedure - Standard Orders for patients who are taller than the maximum length of a pediatric emergency measuring tape (Broselow, etc.) or equivalent measuring from the top of the head to the heel of the foot.
- Base hospital may order additional medication dosages and additional fluid boluses.

V. REFERENCES

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
10190	Procedure - Standard Orders